

NAVAL SPECIAL WARFARE'S CONTRIBUTION TO GLOBAL JOINT  
OPERATIONS IN SUPPORT OF SEA POWER 21, THE UNITED STATES  
NAVY'S VISION FOR THE TWENTY-FIRST CENTURY

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General Studies

by

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MASTER OF MILITARY ART AND SCIENCE

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

## ABSTRACT

NAVAL SPECIAL WARFARE'S CONTRIBUTION TO GLOBAL JOINT OPERATIONS IN SUPPORT OF SEA POWER 21, THE UNITED STATES NAVY'S VISION FOR THE TWENTY-FIRST CENTURY, by LCDR Gary J. Richard, USN, 94 pages.

This study examines naval special warfare's (NSW) contribution to global joint operations in support of Sea Power 21, the US Navy's transformational vision for the twenty-first century. The analysis addresses how NSW's recent force transformation has improved its war-fighting functions and allows for traditional and emerging missions to be integrated within the context of Sea Power 21. As the framework for analysis, this study also examines NSW's history, missions, and role in maritime special operations as it applies to today's contemporary operating environment.

The study concludes that NSW must continue to take advantage of the US Navy's commitment to support joint warfare, to include special operations. Sea Power 21 enables NSW to capitalize on naval war-fighting capabilities and thus enhance its ability to introduce combat power, move to and strike quickly in a crisis area, and effectively shape the battle space. To maintain the most capable war-fighting forces, NSW must continue to develop future mission needs statements based on tomorrow's enemy and operating environment, continuing to commit monetary resources to the research, development, and acquisition of the next generation of personnel, equipment, and surface and subsurface combatant craft.

## ACKNOWLEDGMENTS

This thesis is dedicated to the memory of those quiet professionals who, in the defense of this country, have paid the ultimate price. You will never be forgotten.

I first must thank my loving wife Kimberly and my two children, Marina and Kyle, whose sacrifices in the name of my chosen profession amount to a task much more difficult than the completion of this thesis.

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Finally, I thank my parents for instilling in me the seeds for success and the motivation to believe in myself.

## ACRONYMS

ALOC	Advance Littoral Operating Craft
ASDS	Advanced SEAL Delivery System
CT	counterterrorism
CARL	Combined Arms Research Library
DA	Direct action
DDS	Dry deck shelter
DOD	Department of Defense
FORCEnet	Force networking
HSV-X1	High-speed vessel X-1
ISR	Intelligence, surveillance, and reconnaissance
LCS	Littoral Combat Ship
MK V SOC	Mark V Special Operations Craft
NAVSEA	Naval Sea Systems Command
NAVSPECWARCOM	Naval Special Warfare Command
NAVSOF	naval special operations forces
NSW	Naval Special Warfare
NSWC-PC	Naval Surface Warfare Center, Panama City
NSW 21	Naval Special Warfare 21
NSW RIB	Naval Special Warfare Rigid Inflatable Boat
NSWRON	Naval Special Warfare Squadron
NSWTU	Naval Special Warfare Task Unit
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom

SAHRV	Semi-Autonomous Hydrographic Reconnaissance Vehicle
SBT	Special Boat Team
SDV	SEAL Delivery Vehicle
SDVT	SEAL Delivery Vehicle Team
SEAL	Sea, air, land
SEAWASP	SEAL Weapon and Surveillance Platform
SOF	Special Operations Forces
SR	Special reconnaissance
TSOC	Theater Special Operations Command
UDT	Underwater Demolition Team
US	United States
USN	United States Navy
USSOCOM	United States Special Operations Command

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## CHAPTER 1

### INTRODUCTION

We must take the battle to the enemy, disrupt his plans, and confront the worst threats before they emerge. (2002)

President George W. Bush

Our Navy is on the leading edge of this fight and...Sea Power 21 will help us fulfill the president's direction. (2002a)

ADM Vern Clark

The priority I have is squarely and directly on the global war on terrorism and what we in Naval Special Warfare can do in that regard. (2003, 1)

RADM Albert M. Calland III

#### Thesis Statement

This thesis discusses naval special warfare's (NSW) contribution to global joint operations in support of Sea Power 21, the United States Navy's (USN) transformational vision for the twenty-first century. Specifically, it will address how NSW's recent reorganization has improved its war-fighting functions and allows for traditional and emerging missions to be integrated within the framework of Sea Power 21. Military transformation is by no means a new concept, but doctrinally speaking Sea Power 21 has emerged as part of a major Department of Defense (DOD) transformational initiative as a result of the terrorist attack on America that occurred on 11 September 2001.

### The Research Question

How will NSW employ synergism, exploit asymmetrical strengths in a network-centric environment, and align its efforts in a global joint environment in support of Sea Power 21?

### Subordinate Questions

Is NSW resourced and capable of conducting missions in a network-centric, global joint environment? How will NSW conform to and implement Sea Power 21?

### Significance of this Study

This research question has been developed through discussions with experts within the NSW community assigned to study the current and future application of NSW and Sea Power 21, and its intended end state is to provide meaningful benefit and insight to the NSW community. As NSW continues to develop its roadmap and missions to remain relevant in joint global operations, this study will help expand NSW visibility using the Sea Power 21 vision. This study is by no means conclusive, but rather is intended to encourage future research and further study.

### Thesis Outline

This introductory chapter outlines the circumstances surrounding the genesis of modern naval strategy as it relates to such factors as how the post-Cold War world and the events of 11 September 2001 have prompted change within the NMA, thus becoming the catalyst behind the US military's transformation efforts. Chapter 1 also focuses on assumptions, limitations, and the parameters governing how the research was conducted. Additionally, it presents the research question and subordinate questions.

Chapter 2 discusses the research material collected over the course of the study, providing a factual reference to defend the conclusions to the research question. There is a great deal of information written on the subject of the USN's past naval maritime strategy, leadership, theory, case studies, NSW, and historical research on sea power. There is, however, little written in terms of modern maritime strategy and the Navy's role, as Sea Power 21 is less than two years old. This is also the case with written references regarding modern NSW capabilities. Although there is an abundance of NSW related material available, it focuses mostly on the men and the missions, and not specifically their relationship with the USN, other than perhaps a brief mention. There is also a preponderance of papers and articles written about modern NSW employment, Sea Power 21, network-centric warfare and global joint operations in support of the War on Terrorism. The Combined Arms Research Library (CARL) provided invaluable assistance and provided the major source of research material, both books and periodicals pertaining to this thesis topic.

Chapter 3 explores modern NSW in order to give some insight into the capabilities and missions of today's NSW and naval special operations forces (NAVSOF). The evolution of NSW is discussed in depth from its inception during the interwar period between World War I and World War II, its use in World War II, Korea and Vietnam, and the emergence and relevance to today's modern Sea, Air and Land (SEAL) teams.

Chapter 4 discusses how NSW has applied its recent reorganization change (called NSW 21) to support the Sea Power 21 vision and explores the changing complexities of NSW's role in support of Navy and joint operations. It presents material

to illustrate how NSW is postured to accomplish this in terms of capabilities and structure, and how this may or may not affect the way NSW trains and fights, allowing one to conceptualize how NSW has aligned itself with current and emerging capabilities to better support the Sea Power 21 vision, as well as theater war-fighting commanders. The final chapter, chapter 5, provides the conclusions and recommendations regarding how NSW employs synergism and exploits asymmetrical strengths and is capable of successfully operating in joint operations and of deploying far more capable forces in support of the Sea Power 21 and the War on Terrorism.

### A Shattering of Innocence

The security and relative sense of invulnerability Americans felt as citizens living on an “island nation” with vast oceans separating them from the world’s trouble spots were shattered on 11 September 2001. America had lost its feeling of innocence many times in the past, but this day will forever serve as a reminder that there still exists much uncertainty in the world.

As a result, it has become quite common for people to refer to 11 September 2001 as the day that the world underwent its most major and radical change. The reality is that the world, and more specifically the US military, can trace its period of significant change back to 1989, when the breakup of the Soviet Union marked the end of the Cold War. Although the end of the Cold War was a significant victory of Democracy over Communism and provided the associated relief that the two superpowers did not engage in a global nuclear war, the reality is that the end of the Soviet threat did not make the world a safer place. If one considers the more than \$3 trillion spent on defense during the 1990s and the \$379.9 billion the national defense budget estimates for fiscal year 2004

(DOD 2003a, 1), it could be concluded that vast sums of money and resources allocated to national defense cannot necessarily guarantee US security domestically or that of its significant national interests overseas. Through the visually compelling events of that day, the US finds itself faced with living in a world that is less safe, more complex, and certainly more difficult to understand.

### A Military in Transformation

A process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organizations that exploit our nation's advantages and protect against our asymmetric vulnerabilities to sustain our strategic position, which helps underpin peace and stability in the world. (DOD 2003b, 3b)

#### *Transformation Planning Guidance*

Throughout the 1990s and beyond (Calland 2003, 1), US military strategy has strived to come to terms with maintaining the most prominent and effective military force in a post-Cold War world. Today's military strategy lacks the relative simplicity of the Cold War era, when the bipolar nature of a country's relationship dictated that it was aligned with either "us" or "them." With the loss of this relatively stable Cold War environment, the US now faces the ramifications of failed states, stateless organizations with faceless members who reside among its citizens, transnational terrorism, and unstable regions. As the world changed, the US military maintained its forces without adapting capabilities to reflect a changing threat. Current and future technology plays a major role in facilitating the development of more lethal and effective weapon systems, but it is necessary to focus on redefining cultural and organizational concepts to ensure the military's success in the War on Terrorism.

The Clinton administration described the resulting changes to US defense strategy as a “Revolution in Military Affairs,” and thus focused defense spending on developing new weapon systems that capitalized on emerging technology. According to Andrew Marshall, director of the Office of Net Assessments in the Office of the Secretary of Defense, “A Revolution in Military Affairs is a major change in the nature of warfare brought about by the innovative application of new technologies which, combined with dramatic changes in military doctrine and operational and organizational concepts, fundamentally alters the character and conduct of military operations” (Gongora 1998, 1). In other words, this describes the application of Information Age technology combined with appropriate doctrinal guidance and training to allow US forces to project power directly and decisively around the globe.

This trend continues today as the US meets both the challenges of the new century and the realities of a post-11 September 2001 world and its associated changing threat environment. The Bush administration has developed the term “military transformation” to describe its approach to changing the US defense strategy and force structure (Laird et al. 2002) and has thus made continuing the transformation of the military a major objective. In a 1 June 2002 address, President Bush underscored the importance of this objective by stating, “Our security will require transforming the military . . . [to] be ready to strike at a moment’s notice in any dark corner of the world.”

### Changing US Naval Strategy

The US, as a maritime nation, relies on the USN to maintain dominance of the seas. This ensures its political, economic, and diplomatic superiority, and as the world changes, so too must its maritime strategy. The USN underwent a major strategic change

in doctrine in 1992 with its white paper titled “...From the Sea,” which served to prepare the naval service for the twenty-first century and which defined a combined vision for both the USN and the Marine Corps. This directed the USN’s efforts away from a global threat strategy (this focus centered on a open ocean, war at sea scenario with the Soviet Union) and towards joint operations conducted from the sea, specifically to influence events in the littoral regions of the world. This can be stated simply as a shift from “blue water operations” to “brown water operations.” “...From the Sea” also brought about the concept of naval expeditionary forces, which allows the Navy and Marine Corps team to project power to the shore from the sea, capable of participation in joint operations in support of theater commanders. In so doing, the USN realigned its “strategic thought, doctrine, and employment of naval forces with current national security priorities” (US Navy 1992, 2).

In 1994, the vision and concepts in “...From the Sea” were updated, expanded, and renamed “Forward ...From the Sea.” A major review of strategy and force requirements resulted in a shift in the DOD’s focus to new dangers--chief among which is aggression by regional powers--and the necessity for US military forces to be able to rapidly project decisive military power to protect important US interests and defend friends and allies (US Navy 1994a, 1).

“Forward ...From the Sea” was the cornerstone of naval strategy until October 2002, when Sea Power 21 was unveiled. The Sea Power 21 transformational vision sets the course of action to be followed to ensure the USN will maintain its ability to dominate maritime battle space and employ technological advances to maintain the advantage over adversaries. Sea Power 21 (see figure 1) is composed of three main



enablers: Sea Strike (the ability to project offensive power from the sea), Sea Shield (projecting global defensive assurance), and Sea Basing (forward presence and operational independence from host nations). The binding factor for these areas is called force networking (FORCEnet), and it is the architectural construct that will allow the USN to capitalize on current and merging informational and technological advances, allowing for an “Information Age” USN. The vital asymmetric advantage of information superiority will serve to increase responsiveness and survivability by allowing US forces to disperse while focusing offensive and defensive firepower over tremendous distances (Mayo and Nathman 2003, 43). It will also mark the paradigm shift from platform-centric warfare to network-centric warfare.



Figure 1. Sea Power 21 Vision

*Source:* Clark 2002b, 33.

Sea Power 21 also consists of three organizational processes (see figure 1) that support Sea Power 21’s three main enablers: Sea Trial, which is the processes that integrates emerging technologies and ideals to enhance war-fighting capabilities; Sea

Warrior, which focuses on the technical aptitude, professional development, and the training and education of sailors; and Sea Enterprise, which involves the improvement of organizational alignment, refines requirements, and reinvests savings to buy the platforms and systems needed to develop an increased USN combat capability.

Sea Power 21 addresses an evolving maritime strategy that shifts the USN's focus from Cold War "ship-to-ship" at sea battles to one of modern post-Cold War "network-centric warfare." The theory behind network-centric warfare is that it will fuse multiple sensors and platforms to create a unique single common operational picture of the battle space that utilizes current and emerging information technology to integrate naval sensors, weapons and Navy and Marine Corps ground forces into a fully netted force. This, in turn, has the effect of significantly enhancing command, control, communications, computers, intelligence, surveillance, and reconnaissance capabilities. Merging these capabilities with those of the other services in a joint battle space will give the joint war-fighting commander an unprecedented ability to project power and forces.

Sea Power 21, as the USN's response to President Bush's challenge, has the goal of ensuring that the USN will maintain maritime dominance in both a global and joint environment, as well as win decisively in war. The challenge for NSW is how NAVSOF can best be tailored to support the Navy's new strategic vision of Sea Power 21 into practiced doctrine. This thesis will focus on the two war-fighting enablers of Sea Basing and Sea Strike, as well as the organizational process of Sea Trial, as they pertain to modern NSW. An analysis of the third enabler, Sea Shield, as well as the second and third organizational processes, Sea Enterprise and Sea Warrior, are beyond the scope of this thesis.

### What is Naval Special Warfare?

NSW is the only Special Operations Forces (SOF) in the US military fully dedicated to maritime operations (US Navy 2003, 2-4) and represents the maritime special operations component of the United States Special Operations Command (USSOCOM). NSW is unique in that it provides an offensive, maritime-focused force with theater presence. NAVSOF are centered around SEAL Teams, SEAL Delivery Vehicle (SDV) Teams, and Special Boat Teams (SBT) that are continuously deployed worldwide to meet the theater contingency and wartime requirements of the geographic combatant commanders. NSW forces can operate independently or in conjunction with other US SOF, or within US Navy carrier battle groups and amphibious ready groups (Commander, Special Operations Command 2003c, 20). A more in-depth description of NSW history, capabilities, missions, and NSW's nine principal core tasks can be found in chapter 3.

### Assumptions

Two assumptions have been made prior to beginning this research. First, there will be sufficient material available via books, periodicals, interviews, and others to establish and support the thesis research and conclusions. Second, although the NSW community is addressing similar issues surrounding NSW, it will not publish a definitive method of Sea Power 21 employment during the course of the research.

### Limitations and Delimitations

The limitations on this research were that case studies and specific references to past, ongoing, and future NSW operations in support of the "War on Terrorism" were

available only through secure classified communications, and thus were not included in the interest of maintaining an unclassified thesis. No delimitations are imposed in the writing of this thesis, as all research and written products were obtained through unclassified and open source channels, and distribution of this thesis is unlimited. Any conclusions and recommendations developed as a result of this research will be the view of the author alone and will not necessarily reflect the views or the official position of the NSW Command, the USN, or the DOD.

### Terms Defined

Unless otherwise indicated, the definitions of the key terms below come from Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, as amended through 05 June 2003.

Battle Space. The environment, factors, and conditions that must be understood to successfully apply combat power, protect the force, or complete the mission. This includes the air, land, sea, space, and the included enemy and friendly forces; facilities; weather; terrain; the electromagnetic spectrum; and the information environment within the operational areas and areas of interest.

Command, Control, Communications, and Computers (C4I). Integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to support a commander's exercise of command and control across the range of military operations.

Command, Control, Communications, Computers, Intelligence, Reconnaissance, and Surveillance (C4ISR). Aggregation of diverse command and control, intelligence, surveillance, and reconnaissance elements that provide military information to a

commander and, when brought together with appropriate communication and computer networks, may be thought of as a virtual, enabling capability for military operations. No formal DOD approved definition currently exists (Clark and Moon 1997, 2).

FORCEnet. The operational construct and architectural framework for naval warfare in the Information Age that integrates warriors, sensors, networks, command and control, platforms, and weapons into a networked, distributed combat system, scalable across the spectrum of conflict from seabed to space and sea to land (Mayo and Nathman 2003, 42).

Intelligence, Reconnaissance, and Surveillance (IRS). The capability to collect, process, exploit, and disseminate accurate and timely information that provides the battle space awareness necessary to successfully plan and conduct operations.

Littoral. Those regions relating to or existing on a shore or coastal region, within direct control of and vulnerable to the striking power of naval expeditionary forces (US Navy 1994b, 73).

Naval Special Warfare. A designated naval warfare specialty that conducts operations in the coastal, riverine, and maritime environments. NSW emphasizes small, flexible, mobile units operating under, on, and from the sea. These operations are characterized by stealth, speed, and precise, violent application of force. Also called NSW.

Naval Special Warfare Forces (NAVSOFF). Those active and reserve component Navy forces designated by the Secretary of Defense that are specifically organized, trained, and equipped to conduct and support special operations.

Naval Expeditionary Warfare (NEW). Military operations mounted from the sea, usually on short notice, consisting of forward deployed, or rapidly deployable, self-sustaining naval forces tailored to achieve a clearly stated objective.

Network-Centric Warfare (NCW). An approach to the conduct of warfare that derives its power from the effective linking or networking of the war-fighting enterprise. It is characterized by the ability of geographically dispersed forces (consisting of entities) to create a high level of shared battle space awareness that can be exploited via self-synchronization and other network-centric operations to achieve commanders' intent (Cebrowski et al. 1998, 29).

Platform-Centric Warfare (PCW). There is no doctrinally approved definition of platform-centric warfare as of this writing. The RAND Institute defines the difference between network-centric and platform-centric warfare as “in platform-centric warfare, one must mass force to mass combat effectiveness because each weapon system acts independently, whereas in network-centric warfare effects are massed, rather than force” (Perry et al. 2002, xiv).

Transformation. Creating the future of warfare and national defense while improving how the department, and all of its various parts, does business in order to support and sustain the US position as the world's preeminent military power within current and expected resource limits (unofficial DOD definition can be found on the following website: <http://www.gao.gov/cghome/hscek/text18.html>).

Synergism The potential ability of individual organizations or groups to be more successful or productive as a result of a merger (*Collins English Dictionary* 2000).

## CHAPTER 2

### LITERATURE REVIEW AND METHODOLOGY

NSW's contribution to global joint operations in support of the USN's Sea Power 21 vision is a topic that, based on the author's inquiries and research, has not lent itself to any significant detailed study. The NSW-USN relationship, in terms of Sea Power 21, is reflected neither in current doctrine nor documentation. There are, however, a number of government documents, papers, books, magazine and journal articles, and unpublished materials available through the Combined Arms Research Library (CARL) that were used to support the research. As the terrorist attacks of 11 September 2001 resulted in a new focus for America's National Military Strategy, the resulting Sea Power 21 vision is less than two years old. Therefore, most of the background information used in the writing of this thesis is fairly recent. This chapter outlines the research methodology and frames the factual references that allowed the author to analyze the available works pertaining to the USN, NSW, and Sea Power 21.

#### Methodology

The first facet in the writing of this thesis was the collection of the vast amount of research material needed to support the research question. The CARL proved to be an invaluable source of expertise and reference material. The staff established the initial list of available reference material, a critical first step in project of this magnitude. They also directed the author's initial efforts towards four broad categories of reference material. This established the general focus topics that constitute the nucleus of the thesis analysis: military transformation, past and current naval strategy, past and current NSW, and Sea

Power 21. Concurrent research expanded on the four categories of reference materials, to include a historical study of the development and evolution of NSW, an analysis of NAVSOF force structure, NAVSOF participation in naval and nonnaval tasking, integration in joint operations, and geographical applications.

Researched case studies regarding NAVSOF participation in the War on Terrorism serve to provide a factual basis, which lends credence to and supports the conclusions. The exclusion of classified information pertaining to past, current, and ongoing NSW operations limited the amount of usable data, but this had minimal impact in the development of the conclusions.

The second facet in the writing of this thesis was the methodical analysis and organization of all procured research material. This step involved a careful design to determine which research material would appropriately support which chapter. These efforts allowed the author to design the thesis to allow the reader to follow a logical presentation of facts and a progression of requisite background information. This allows the reader to better grasp the context of the problem, the significance of the study, and how this ultimately supports the research question, subordinate question, and the conclusions.

The remainder of chapter 2 discusses the research material used in the writing of this thesis and has been found to best support the research and subordinate questions. It is organized into the four focus topics, and further categorized into relevant government documents, papers, books, and magazine and journal articles. These references may serve as a point of departure and may prove useful to any future study.



## Military Transformation

Secretary of Defense Donald Rumsfeld best summed his logic regarding the military transformation efforts with his statement that “the War on Terrorism is a transformational event that cries out for us to rethink our activities, and to put that new thinking into action” (DOD 2003b, 1). In order to better understand strategic strategy and the DOD’s effort regarding military transformation in the post-Cold War environment, the author referenced five pertinent government documents. These published documents provided the requisite background information and served as the point of departure in deducing the parallels of how strategic vision drives military transformation, thus affecting USN strategy. USN strategy thus affects every aspect of naval warfare, to include NSW.

The DOD’s *Transformational Planning Guidance* provided a wealth of knowledge and was key to understanding how today’s contemporary operating environment demands a force and capabilities that can asymmetrically defeat both today’s and tomorrow’s enemy. The *Naval Transformation Roadmap* and the *CNO Guidance for 2004* are the key documents that outline how today’s USN is focusing its efforts towards naval transformation. It delineates how the USN, as the nation’s first responders (US Navy 2002a, ii), will incorporate advanced technologies and focus its efforts in a networked, joint battle space. The *United States Special Operations Forces Posture Statement, 2003-2004*, further delineates the transformational efforts as they apply to SOF to better decisively engage global terrorism. Although NSW is the naval component of USSOCOM, it is also the SOF component of the USN (the nature of the NSW-USN relationship that is further expanded upon in chapters 3 and 4). *Naval Special*

*Warfare*, NWP 3-05 (Revision E), published by the Department of the Navy, provided a wealth of information regarding numerous aspects of NAVSOF and describes the recent transformational aspects in terms of NSW's recent force realignment. This document, published in August 2003, served as the best and most current source of information regarding today's NSW.

Although there are numerous papers and books written on military transformation, magazine and journal articles provided the majority of the information. There is no shortage of pertinent and available articles, but the articles identified in the reference list proved instrumental in developing an understanding of how military transformation drives the USN and NSW efforts. Using the ProQuest search engine at CARL, several interesting articles, such as "War is No Impediment to Transformation" by Robert Ackerman and Beverly Mowey, "Power Projection for the New World Disorder" by Merrick Carey, and "The Revolution in Military Affairs: What Should the CF Do about It?" by Theiry Gongora, describe how a paradigm shift in the war-fighting mind-set is an essential enabler in the conduct of the War on Terrorism. These articles stress that, in addition to implementing technological advantages in war fighting, "cultural and organizational concepts must also be changed, and all of the services and the congress must develop new ways of funding and enacting defense changes" (Ackerman 2003a, 17).

### Past Naval Strategy

Past naval strategy was based on Alfred Thayer Mahan's *The Influence of Sea Power Upon History*, whose cornerstone tenet focused on command of the sea. The emergence of 1992's "...From the Sea" and 1994's "Forward ...From the Sea" white

papers represent the Department of the Navy's priority of transforming the naval force into one that can master the future operational battle space. These two papers go into great detail, laying groundwork for an understanding of how past maritime strategy has evolved from open-ocean operations to the current threat significance of the "employment of naval forces from the sea to influence events in the littoral regions of the world" (US Navy 1994b, 1). Naval Doctrine Publication 1, *Naval Warfare*, published in 1994, combines the visions described in "...From the Sea" and "Forward ...From the Sea" into official doctrine. Study of these works is a necessary precursor to establish the basis of understanding of the Sea Power 21 vision.

There are numerous books written on naval strategy. *Sea Power in the Twenty-First Century: Projecting a Naval Revolution* by Charles W. Koburger Jr. and *The Future of Sea Power* by Eric Grove address maritime strategy in terms of twenty-first-century warfare and discuss what future strategy will consist of. These two books familiarize the reader with the capabilities of today's naval platforms, as well as examine the changing nature of naval warfare as it applies to the conflicts of tomorrow.

#### Past and Current NSW

*Naval Special Warfare*, NWP 3-05 (Revision E), is an excellent base document for describing the intricacies of today's NSW, and was key in the writing of chapter 3. Although the author's personal experiences as a SEAL officer provided the framework for the thesis analysis, *Naval Special Warfare*, NWP 3-05 (Revision E), provided doctrinally correct, up-to-date facts regarding NSW history, past and present NSW forces, organization, command relationships, and the role of NSW forces in today's operating environment. Commander, Special Operations Command, published in 2003 its

*Special Operations Forces in Operation Iraqi Freedom* informational document, which detailed SOF involvement in Operation Iraqi Freedom. Case studies of NSW missions assisted the author in validating the research questions pertaining to NSW involvement in global joint operations in support of Sea Power 21. Other government documents that address NSW employment in support of naval and nonnaval operations are Joint Publication 3-05, *Doctrine for Joint Special Operations Forces*, and the *United States Special Operations Forces Posture Statement 2003-2004*.

There are no shortages of excellent books written about SOF and NSW. Several books were selected based on their addressing NSW support to naval operations. *SEALs in Action* by Kevin Dockery, *Scouts and Raiders: The Navy's First Special Warfare Commandos* by John Dwyer, *Brave Men*, *Dark Waters* and *Never Fight Fair!: Navy SEALs' Stories of Combat and Adventure* by Orr Kelly, and *Encyclopedia of the Navy SEALs* by Charles Sasser provided both past and present perspectives regarding NSW's growth and evolution into today's premier maritime special operations force.

Again relying on the ProQuest search engine at CARL, the author found numerous articles that discuss various aspects of NSW and NSW operations. *Proceedings* is the US Naval Institute's professional monthly journal that provides a forum for open discussion on sea-service-related topics. This journal proved to be an invaluable and major source of information on topics including maritime strategy, Sea Power 21, NSW, and other naval activities. Throughout the research phase of this thesis, no articles that specifically address NSW and Sea Power 21 were published. *Proceedings* did, however, publish numerous articles describing the various aspects of Sea Power 21, which allowed

the author to analyze how NSW supports naval operations in the context of the navy's maritime strategy.

A brief article in *Sea Power* by John Heffron, "The Virginia Attack Boat Brings New Potency to the Fleet," and an article in *Defense Daily* by B. C. Kessner, "Naval Special Warfare Input, Possible Module for LCS," discuss the USN's growing interest in incorporating SOF requirements into future USN ship designs. These articles explore the current and future fundamental concept of NSW and Sea Basing. Joby Warrick's *Washington Post* article, "On North Korean Freighter, a Hidden Missile Factory," presents a concrete example of how NSW possesses the versatility to conduct combined joint maritime interdiction force operations as a sea-based, sea-strike force.

### Sea Power 21

Admiral Vern Clark, the USN's current Chief of Naval Operations, introduced the Sea Power 21 capstone article in an October 2002 *Proceedings* article titled "Sea Power 21: Projecting Decisive Joint Capabilities." Admiral Clark explores the relationship between current world events and the necessity to evolve naval capabilities to maintain world maritime dominance and introduces the Sea Power 21 vision, clearly articulating the various aspects of this vision and how the USN will operate in global joint operations. *Proceedings* published a series of articles, each highlighting specific enabling and organizational aspects of Sea Power 21, penned by several different authors. In the context of the research question, a study of these articles allowed the author to develop an understanding of Sea Power 21, an essential step in analyzing how NSW best supports this vision.

In summary, there is no one definitive reference source that addresses NSW contributions in the support of Sea Power 21. There are currently numerous published and unpublished sources of information available, mostly in the form of journals, magazines, and web-based articles. These references provided ample information to adequately analyze aspects of both NSW and Sea Power 21 and provided sufficient facts and instances in the writing of this thesis, as well as to reinforce the author's conclusions.

## CHAPTER 3

### NAVAL SPECIAL OPERATIONS FORCES

It is not the critic who counts, not the man who points out how the strong man stumbled, or where the doer of deeds could have done better. The credit belongs to the man who is actually in the arena; whose face is marred by the dust and sweat and blood; who strives valiantly; who errs and comes short again and again; who knows the great enthusiasms, the great devotions and spends himself in a worthy course; who at the best, knows in the end the triumph of high achievement, and who, at worst, if he fails, at least fails while daring greatly; so that his place shall never be with those cold and timid souls who know neither victory or defeat. (1910)

Theodore Roosevelt, Paris Sorbonne

The War on Terrorism, America's first war of the twenty-first century, finds the United States facing an enemy unlike any other faced before. The *National Security Strategy* and thus *National Military Strategy* are striving for internal transformation in order to commit the US to decisively fighting and winning a new kind of war. This paradigm shift in warfare is being fought not against an established nation-state, but rather against an ideological mind-set that is exempt from any specific geographical boundary. Fighting against this enemy requires a new and unconventional approach. As US military options were being considered post 11 September 2001, US Defense Secretary Donald Rumsfeld stated, "The key military units likely to see action against terrorist networks are the country's elite Special Operations forces from the Air Force, Army and Navy" (Belida 2001). It was evident to military planners that to successfully prosecute an effective War on Terrorism, they would have to turn to SOF to achieve their military objectives, as well as play a major role in the successful pursuit of strategic diplomatic, informational, and economical objectives.

There is a colorful past history of SOF participation in every conflict in which this nation has been involved, from early America's quest for democratic rights in the Revolutionary War to the high tech wars of uncertainty that defines modern warfare of the twenty-first century. Today's SOF find themselves challenged like no other time in their relatively short history, and waging the War on Terrorism has resulted in the heaviest combat use of SOF since the Vietnam War (Kreisher 2002,1).

Special operations are operations conducted by specially organized, trained, and equipped military and paramilitary forces to achieve military, political, economic, or informational objectives by unconventional military means in hostile, denied, or politically sensitive areas (Chairman of the Joint Chiefs of Staff 1998, 67). This chapter focuses on the naval component of SOF, discusses modern NSW, and illustrates its evolution, capabilities, and employment across the full spectrum of military operations.

### Evolution of Naval Special Warfare

When the hour of crisis comes, remember that 40-selected men can shake the world. (Neillands 1997, 1)

Yasotay

Modern NSW has established itself as the world's premier maritime special operations force, capable of operating in the most demanding of operating environments, the sea. What is not readily apparent is the rich heritage of the NSW community, starting with the emergence of amphibious warfare during World War II, and the associated need for an amphibious reconnaissance and beach-marking capability. The concept of amphibious operations is not a new one, and the use of amphibious forces can trace its roots to Gallipoli, the British naval operation of 1915. For the US, amphibious



operations--getting US divisions and their equipment ashore so they could close with and defeat the Axis forces--was still an evolving military art when America entered World War II (Dwyer 1993,1), although annual fleet landing exercises were regularly being conducted both in Puerto Rico and at the Amphibious Training Base in Little Creek, Virginia.

The response to this need was the formation of the Amphibious Scouts and Raiders, the original ancestors to today's Navy SEALs. The mission of the Army-Navy unit was to operate during night hours before a landing, reconnoiter and identify the objective beach, mark it prior to the H-hour, and then guide in the amphibious waves (Dwyer 1993, IX). With their first real world mission of cutting net obstructions across the Wadi Sebou River near Casablanca, the Scouts and Raiders validated their capabilities in November 1942 as part of the Western Naval Task Force in support of Operation Torch, the Allied advance into Northern Africa.

Following the success of the Scouts and Raiders in Northern Africa, in May 1943, then Chief of Naval Operations Admiral Ernest Joseph King directed the formation of naval demolition units, with the official title of "Naval Combat Demolition Units" (Sasser 2002, 155) bestowed upon the completion of their rigorous training. In July 1943, their mission was to clear obstacles in the water and on the beach for the Allied invasion of Sicily, called Operation Husky. Although no obstacles that could impede the Allied naval forces landings were found, the Naval Combat Demolition Units were instrumental in maintaining clear channels for the follow on friendly support infrastructure, ensuring this Allied center of gravity was unimpeded.

In November 1943, a Joint Army-Navy Experiment and Testing Board, known as JANET, was established to study how to mitigate risk to landing forces from submerged and beached obstacles. JANET's focus was towards D-Day, the invasion of Normandy. Of particular concern to the planners was Hitler's formidable coastal defenses being built along the English Channel and the Atlantic, the famed Atlantic Wall, and how that would affect Allied forces attempting to come ashore. It was feared that underwater and land-based obstacles, such as mines, wires, steel barriers held up by braces called Belgium Gates, and posts buried in the sand and topped with contact mines would halt and destroy landing boats and ships, thus bringing any attempt at amphibious operations to a halt. This presented an operational dilemma for Allied planners, who were in the process of drafting Operation Overlord to be a major amphibious assault.

Shortly after JANET's inception, the need to have detailed and accurate hydrographic information as a precursor to amphibious operations was underscored as the United States Marine Corps suffered terrible losses as they attempted to wade ashore during the Battle of Tarawa. As landing ships approached the shoreline, uncharted coral reefs forced them to discharge their cargo of combat-ready Marines several hundred yards from the shore. Many of these Marines fell into holes in the coral reefs or were cut down by Japanese fire.

Although the Marines ultimately prevailed at Tarawa, this resulted in the development of special teams of men trained to conduct prelanding surveys of planned amphibious landing sites and remove any impeding obstacles. In SEAL legend, the Battle of Tarawa is counted as the date for the birth of their predecessors, the underwater demolition teams (UDT) (Kelly 1992, 7).

The war in the Pacific was gearing up to be an “island hopping” campaign, with numerous atolls and coral reefs being a common natural obstacle surrounding targeted islands. Rear Admiral Kelley Turner, commander of the Fifth Amphibious Force and the overall commander for the operation in Tarawa, realized the need for a new type of unit that would conduct hydrographic reconnaissance and the demolition of obstacles prior to amphibious landings. He saw the Naval Combat Demolition Units as being the core of this new unit, and with the approval of Admiral Chester Nimitz, Commander-in-Chief of the Pacific Fleet, the UDTs were born.

After their establishment, UDTs participated in every amphibious invasion in the Pacific Island Campaign, beginning with Saipan in June 1944 (US Navy 2003, 3-3). The UDTs conducted their first operations during Operation Flintlock, the invasion of the Kwajalein atolls in the Marshals. These men became the famed “naked warriors” (Sasser 2002,153), as their only equipment on missions often consisted of just swimsuits, fins, and facemasks, and participated in every major amphibious landing throughout the Pacific theater during World War II. The UDTs demonstrated their worth, and their mission continues today as a mission essential task carried out by the Navy’s SEAL teams.

As the war drew to a close with the use of atomic weapons in Hiroshima and Nagasaki, the UDTs legendary role in the South Pacific drew to a close. Although an integral part of naval amphibious operations, they were not spared the effects of a post-war military demobilization and drawdown of forces. UDTs saw their thirty-four team wartime strength drop to “four teams, two on each coast, each team consisting of seven officers and forty-five men” (Sasser 2002, 238). In spite of this, the postwar era became

one of experimentation and technological developments, particularly in the areas of self-contained underwater breathing apparatus, methods of underwater swimming, and innovative procedures utilizing the submarine force for insertion and extraction. UDTs expanded their primary wartime role of hydrographic reconnaissance and beach clearing to include over the beach land operations, small-unit tactics, and direct action type missions.

The Korean War was a period of transition for the men of the UDT, as they refined and employed their special style of warfare. UDTs conducted numerous direct action missions involving demolition raids on bridges and tunnels all along the Korean coast, performed mine clearing operations in restricted harbors, and supported guerilla operations. UDTs conducted amphibious reconnaissance and beach-marking operations that were instrumental to the successful execution of Operation Chromite, General MacArthur's amphibious assault at Inchon, as well as over sixty other amphibious operations. As the Korean War ended with the signing of an armistice, the UDTs conducted "125 reconnaissance missions, twelve demolition raids, and an uncounted number of special missions" (Dockery 1991, 91) unilaterally, with the newly formed Central Intelligence Agency, and as part of the United Nations efforts. Postwar activities throughout the 1950s for the UDTs involved continued training in reconnaissance and amphibious operations.

The early 1960s proved to be a profound turning point for America's SOF, highlighted by the Bay of Pigs invasion in April 1961. One of the many lessons learned from the Bay of Pigs was that the US had difficulty carrying out an operation that was too big to be kept secret but smaller than an all out commitment of US forces (Kelley 1992,

75). This disastrous and unsuccessful attempt by the US to overthrow Cuban premier Fidel Castro underscored the need to restructure the US military from a force that relied solely on nuclear deterrence to one relying on nonnuclear, unconventional warfare. President Kennedy addressed this necessity in a speech before a joint session of Congress on 25 May 1961:

I am directing the Secretary of Defense to expand rapidly and substantially, in cooperation with our Allies, the orientation of existing forces for the conduct on non-nuclear war, paramilitary operations and sub-limited or unconventional wars. In addition our special forces and unconventional warfare units will be increased and reoriented. Throughout the services new emphasis must be placed on the special skills and languages which are required to work with local populations. (Kennedy 1961)

This speech delineated President Kennedy's shift in foreign policy regarding the Union of Soviet Socialist Republic from a "massive retaliation" (Carnesale et al. 1983, 80) strategy favored by the Eisenhower Administration to one of counterinsurgency, which would serve as the nucleus of the Kennedy administration's policy regarding future involvement in Vietnam. This policy, focusing on counterinsurgency, guerilla, and unconventional warfare, drove the services to develop a counterinsurgency capability. The USN fielded a number of potential ideas regarding the naval aspects of naval counterinsurgency operations prior to President Kennedy's speech. A number of working groups within the office of the Chief of Naval Operations recommended the establishment within both the Atlantic and Pacific Fleets of a unit that would be "a center of focal point through which all elements of this specialized Navy capability {in guerrilla warfare} would be channeled." These proposed units, to be designated by the acronym SEAL, "a contraction of SEA, AIR, LAND . . . indicating an all-around, universal capacity" (Mardola and Fitzgerald 1986,103), were manned with personnel from UDTs,

and officially came into being with the commissioning of SEAL Teams 1 and 2 in January 1962.

The Vietnam War would be the forum in which this new unit would receive its baptism by fire, as the newly formed SEAL teams would begin their Vietnam experience initially as advisors training South Vietnamese forces. SEAL combat operations began in February 1965, when a detachment from SEAL Team 1 arrived to support Commander, US Naval Forces, Vietnam (COMNAVFORV), with direct action missions in a riverine environment. This heralded the continuous presence of SEAL platoons and an escalation of combat operations until the last SEAL platoon departed Vietnam in December 1971, although advisors remained in country until 1973.

NSW experienced another drawdown period as part of the post Vietnam War demobilization of military forces, resulting in both a reduction of manpower and funding. The UDTs continued to train for hydrographic reconnaissance, while the SEALs trained for land warfare and riverine operations. While UDTs maintained close ties with the conventional USN by supporting their traditional role of amphibious operations, the SEALs directed their focus away from their previous Vietnam mission. The emphasis was on direct action and special reconnaissance missions in a major conventional war, particularly war with the Warsaw Pact (Marquis 1997, 67).

In May 1983, it was realized that SEALs and UDTs possessed similar capabilities desirable to conventional Navy operations, and thus considered redundant. Therefore, all UDTs were redesignated as SEAL teams or Swimmer Delivery Vehicle Teams (SDVTs). SDVTs have since been redesignated as SEAL Delivery Vehicle Teams (SDVs). SDVs are a free-flooding submersible minisubmarine that combines the combat swimmer

mission with a clandestine underwater mobility capability. SDVs are used to transport SEALs and demolitions or conduct reconnaissance missions, and will be discussed in greater detail later in this chapter.

### Modern Naval Special Warfare

Reacting after terrorists have committed their deadly acts is simply consequence management. . . . The fight against this dispersed and elusive enemy requires a versatile force with global presence like Navy SEALs and Special Warfare Combat-craft Crewman, supported by a robust intelligence capability. . . . In short, NSW must transform from a reactive force into a preemptive force.

RADM Albert M. Calland III

USSOCOM is one of nine unified commands in the US military's combatant command structure. Having been assigned lead responsibility for the War on Terrorism (Commander, Special Operations Command 2003c, 11), USSOCOM is responsible for all US SOF (see figure 2).

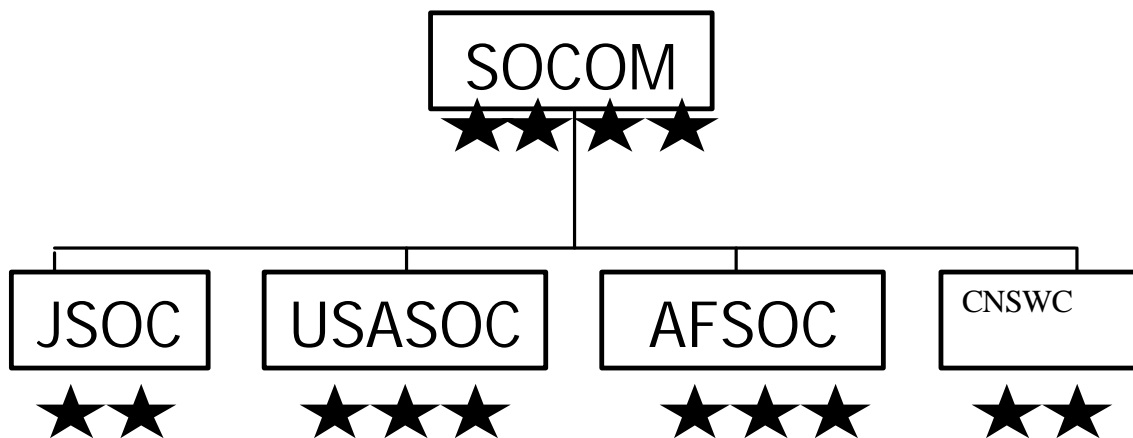


Figure 2. USSOCOM Force Structure  
*Source:* NAVSPECWARCOM Command Brief.

Naval Special Warfare Command (NAVSPECWARCOM) is one of three service component commands under USSOCOM, and has the responsibility for the organization, training, and readiness of all NAVSOF (see figure 3). NAVSPECWARCOM's mission is to prepare NSW forces to carry out maritime special operations and to develop special operations doctrine, strategy, and tactics to support the requirements of USSOCOM, Chief of Naval Operations, and theater combatant commanders (US Navy 2003, 3-4).

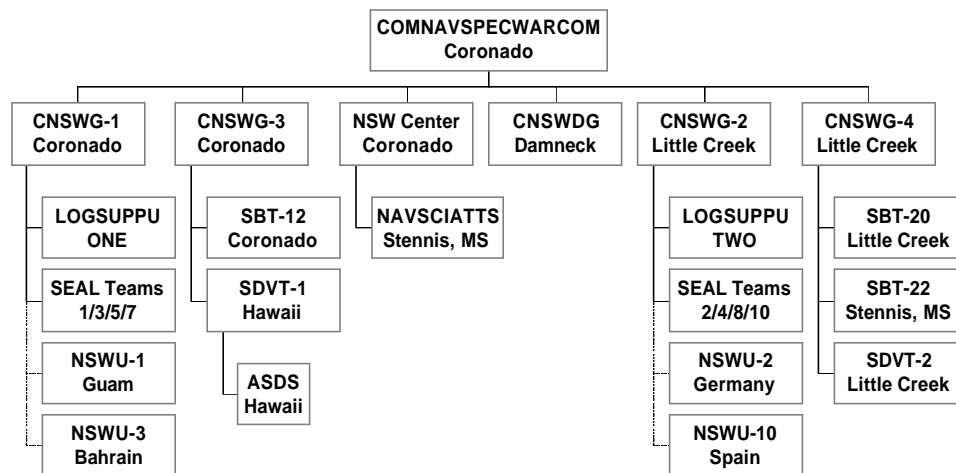


Figure 3. NSW Command Relationships

*Source:* NAVSPECWARCOM Command Brief.

Today's NSW conducts operations within the full range of military operations throughout the strategic, operational, and tactical levels of war. As the maritime component of USSOCOM, NSW supports national, theater, and conventional objectives. Although capable of conducting special operations in any environment, NSW forces' focus is on maritime special operations, and thus derives its uniqueness by maintaining small, mobile units that capitalize on mastering the most demanding of operational



environments, the sea. Maritime special operations is defined as special operations conducted in a maritime environment: on, under, and from the sea, rivers, or other waterways (US Navy 2003,1-5), and can be employed in both war and military operations other than war. In today's volatile and unpredictable strategic environment,

NSW provides options that mitigate the possibility of the expansion of a world crisis that may be triggered by the use of larger, conventional forces. Additionally, large-scale movement of conventional forces is often highly visible and predictable, serving as clear indicators of US intentions and thus sacrificing the element of surprise. The small size, unique capabilities, and often self-sufficient nature of SOF operational units provide the US with feasible and appropriate military responses that do not entail the degree of political liability or risk of escalation normally associated with employment of larger, and necessarily more visible, conventional forces (US Navy 2003,1-4). NAVSOF are thus clearly a force of choice, as they possess the versatility to either operate independently, or complement larger conventional forces, and operate in a wide range of combat environments.

Joint Publication 3-05, *Doctrine for Joint Special Operations*, and Naval Warfare Publication 3-05 (Revision E) identify nine principal SOF core tasks, formally referred to as "mission areas" (Commander, Special Operations Command. 2003a). These are direct action (DA), special reconnaissance (SR), foreign internal defense, unconventional warfare, counterterrorism (CT), counterproliferation of weapons of mass destruction, civil affairs operations, psychological operations, and information operations. Although these nine principal SOF core tasks represent a unique combination of abilities in clandestine operations, NAVSPECWARCOM has focused NSW's efforts on DA and SR

type missions. NAVSOF are trained and equipped to accomplish these nine core tasks, but exploit their inherent capabilities to conduct other noncore task activities, such as coalition support, combat search and rescue, noncombatant evacuation operations, counter drug activities, humanitarian assistance, and security assistance.

A key aspect in the use of NSW to execute these core tasks is the ability to execute from the sea, using various sea-based maritime platforms, such as submarines, naval ships, and nonnaval ships. With half the world's industry and population located within one mile of an ocean or navigable river, NSW is the maritime experts of these vital littoral regions. The following descriptions of the nine SOF core tasks are derived from Joint Publication 3-05, *Naval Special Warfare NWP 3-05 (Rev. E)*, and *United States Special Operations Forces Posture Statement 2003-2004*.

DA missions are offensive actions conducted across the full spectrum of military operations. This type of operation is characterized as being short in duration and seeks to achieve a specific, well-defined end state. DA missions may include assaults, raids, ambushes, and terminal guidance operations for close air support, air, or naval munitions. Additionally, NSW plays a major role in maritime interdiction operations by conducting visit, board, search, and seizure operations to board and seize contacts of interest.

SR missions complement national and theater collection assets and systems by obtaining specific, well defined, and time sensitive information of strategic or operational importance (US Army Command and General Staff College 1995, 36). This core task highlights the human, eyes on target aspect of intelligence collection, and provides commanders with real time or near real time enemy movements, surveillance of airfields, harbors or other critical nodes, and post-strike battle damage assessment. Although this

core task implies ground-based operations, NSW conducts SR in support of conventional naval operations by conducting hydrographic reconnaissance as a precursor to amphibious operations.

Foreign internal defense is an activity that is usually not conducted unilaterally, but rather as part of a joint or interagency endeavor. The primary foreign internal defense role for NSW forces is to train, advise, and otherwise assist friendly government naval or maritime military and paramilitary forces to protect their societies from subversion, lawlessness, and insurgency in support of theater and national objectives (US Navy 2003, 1-7). This important facet of US foreign policy is normally conducted in a noncombat environment and for a lengthy period of time, and plays a large role in a host nation's internal defense and development. Security assistance, joint and combined exercises, and personnel exchange programs are all foreign internal defense activities.

Unconventional warfare, as defined in Joint Publication 3-05, encompasses a broad spectrum of military and paramilitary operations, normally of long duration, conducted primarily by indigenous or surrogate forces that are organized, trained, equipped, supported, and directed in varying degrees by an external source.

The *USSOCOM SOF Posture Statement* of 2003-2004 states that CT is the number one SOF core task since the events of 11 September 2001. Failed states and unstable regions provide a haven for international terrorism, and the CT core task involves "offensive measures to prevent, deter, preempt, and respond to terrorism" (Commander, Special Operations Command 2003c, 36). NSW conducts this task with a maritime focus, although not limited to just the maritime environment. NSW involvement in CT includes reconnaissance and surveillance of CT targets, attacks against designated

CT targets or terrorist infrastructures, and sabotage actions against terrorist support systems.

Counterproliferation involves actions taken to support DOD and other government agencies to locate, identify, seize, destroy, or render safe weapons of mass destruction. This task is extremely specialized and time driven, and requires personnel with unique specialized training. NSW does not possess the organic capability to conduct the counterproliferation mission, but rather serves as a supporting function in the conduct of missions within other core task areas.

Civil affairs operations are operations consisting of civil affairs activities and support provided to commanders responsible for conducting civil-military operations. Civil affairs activities include establishing a military government or civil administration until a civilian authority or government can be restored. NSW forces do not unilaterally conduct civil affairs, but rather support specialized civil affairs forces.

Psychological operations involve planned operations to convey select information to foreign audiences to influence their emotions, motives, or behavior. NSW does not possess the organic capability to conduct psychological operations, but rather serves as a supporting function in the conduct of missions within other core task areas.

Information operations involve actions taken to achieve information superiority over an enemy by affecting information or information systems while protecting US information and information systems. NSW supporting information operations will normally do so in support of an overall campaign planned and directed by information operations warfare specialists.

## Naval Special Warfare 21

Recent force realignment highlighted the efforts to transform NSW into the twenty-first century. Called Naval Special Warfare 21 (NSW 21), it was undertaken to create the optimal NSW organization for the twenty-first century (Commander, Special Operations Command, 2003c, 19). This entailed reshaping and reorienting the entire NSW community to better enhance its overall capability, with the centerpiece of the realignment being the Naval Special Warfare Squadron (NSWRON).

NSW 21 was designed with five specific objectives: develop a new deployment model based around the NSWRON; restructure NSW, to include a new SEAL Team on each coast; streamline and realign NSW training; “optimize command and control relationships forward and to create an improved command, control, communications, computers, intelligence, surveillance and reconnaissance capability (Keeter 2002a, 1).

The NSWRON is a new concept that brings the SEAL team together with its “deployed force assets” in the United States prior to deployment, rather than waiting until after the SEAL team and the force assets have deployed (Vanier 2002). Under the previous SEAL team deployment structure, SEALs and other NSW assets (SBTs, SDVs, etc.) would rarely train together before deployment, resulting in inconsistent training standards and standard operating procedures. With the entire SEAL team deploying, to include senior leadership to provide mentorship and representation, NSW 21 has the synergetic effect of unifying the NSW forces that will deploy together and having them train together prior to deployment. This allows for equipment and personnel compatibility to create a truly war-fighting focused and integrated force.

## Naval Special Warfare Forces and Organization

NAVSPECWARCOM oversees all NSW forces and serves as the maritime SOF component to both USSOCOM and the USN. NAVSOF consist of SEAL teams, SBTs and SDVTs.

NAVSOF is centered on SEAL teams. A SEAL team is organized into two or three Naval Special Warfare Task Units (NSWTU) consisting of two or three platoons each, for a total of six platoons per SEAL team. Each NSWTU consists of SEAL platoons, a command and control element, and a mobility element.

A SEAL platoon normally consists of sixteen officers and enlisted SEAL-qualified men and is commanded by a Navy lieutenant (0-3); it can be further broken down into two squads of eight men each. A SEAL team also comprises of a headquarters element, consisting of ten supporting departments. SEALs are trained and equipped to conduct a variety of combat missions in support of theater combatant commanders and conventional USN forces. Operating in small numbers, a SEAL platoon's ability to conduct clandestine, high risk missions and provide real time intelligence and eyes on target offers decision makers immediate and virtually unlimited options in the face of rapidly changing wartime situations (Commander, Special Operations Command 2003c, 20). During the final phase of predeployment training, usually six months prior to an overseas deployment, a SEAL team is redesignated a NSWRON. A NSWRON is an operational construct built around a SEAL team, which deploys independent, interoperable force packages to (normally) two theaters simultaneously (Commander, Naval Special Warfare Command 2002, 3). The nucleus of a NSWRON is a SEAL Team, augmented organic and nonorganic assets, such as NSW boats, SDVs, intelligence

personnel, and a mobile communications detachment, with the intent to build NSW force interoperability. The NSWRON concept was implemented to provide operational commanders a more capable and tailorable force, thus “greatly increasing the Squadron’s ability to meet specific regional commanders or theater special operations command (TSOC) requirements” (Goodman 2002, 1). SBTs are the force provider for NSW unique craft and personnel to support NSW and maritime special operations, and deploy as special boat detachments (SPECBOAT DETs) as part of a NSWRON. A SBTs organization is similar to that of a SEAL team, but with NSW combatant craft making up its operational forces. SBTs conduct the infiltration and extraction of SOF in both open-water and riverine environments, coastal patrol and interdiction operations, various boat support functions, and man and equip NSW unique combatant craft. SBT combatant craft are designed for high-speed operations in both day and night, low-to-medium-threat environments. The three types of combatant craft owned and employed by the SBTs are the Mark V Special Operations Craft (MK V SOC), the Special Operations Craft-Riverine, and the NSW rigid inflatable boat (NSW RIB). These craft are manned and operated by highly trained individuals called Special Warfare Combat-craft Crewman, also referred to as “the boat guys” (Ansarov 2003).

The MK V SOC provides a medium range insertion and extraction capability for SOF in a low-to-medium-threat environment (US Navy 2003, B-1). Armed with a variety of weapons, to include .50-caliber machine guns and 40-millimeter grenade launchers, the MK V SOC can achieve speeds in excess of forty-five knots. Capable of transporting up to sixteen SEALs and SOF operators and their equipment, to include their combat rubber raiding craft, small rubber boats commonly known as “zodiacs” in recognition of

its manufacturer (Sasser 2002, 114), the MK V SOCs normally operate in detachments of two craft, including their associated logistical support. A detachment is deployed via US Air Force C-5 airlift, vehicles, or on conventional naval or nonnaval ships.

The special operations craft-riverine is a short-range insertion and extraction platform designed to operate in shallow waters commonly found in riverine and littoral environments. Featuring ballistic armor and five weapon mounts, the special operations craft-riverine are armed with .50-caliber and 7.62-caliber machine guns as well as 40-millimeter grenade launchers and are capable of speeds in excess of forty knots. This craft is capable of transporting up to six SOF operators and is transportable via US Air Force C-130 and larger aircraft, as well as various medium-lift helicopters.

NSW RIBs provide a short-range, ship-to-shore insertion and extraction capability for SOF in a low-to-medium-threat environment (US Navy 2003, B-4) and are able to conduct SOF resupply and maritime surveillance. NSW RIBs are armed with .50-caliber and 7.62-caliber machine guns, as well as 40-millimeter grenade launchers, and can achieve speeds in excess of forty knots depending on sea conditions. Capable of transporting up to eight SEALs and SOF operators and their equipment, NSW RIBs are deployable via US Air Force C-130 and larger aircraft, as well as conventional naval or nonnaval ships. RIBs can also be air dropped from a C-130 aircraft as part of the maritime craft aerial deployment program.

SDVTs own and operate the MK VIII, MOD I SDVs, dry deck shelters (DDS), and the new Advanced SEAL Delivery System (ASDS). SDVT organization is unique in that an SDVT consists of not just SEALs, but also US Navy divers and non-SEAL technicians. The team's capabilities center on the SDV, which is a wet submersible



(which involves lengthy periods of transit in cold ocean waters with the operators protected by a wet or dry suit) that is battery operated. SDVs have the capacity to carry six SEALs, two of whom are the SDV pilot and navigator. The SDVs are minisubmarines that are launched from fast attack submarines or other ships and can clandestinely transport a squad of SEALs on a wide variety of missions (Klose 2003). Each SDVT consists of four SDVT task units and is composed of SDVs, SDV operators, and SR and associated support personnel. Its capabilities in terms of range, endurance, and speed remain classified.

The SDVs operational tasks include reconnaissance of undersea and coastal facilities; ISR and other intelligence gathering tasks; collection of hydrographic information; infiltration and exfiltration of SOF and agents, personnel, and equipment; and emplacement and recovery of remote sensors. This does not represent a complete list of the SDV's mission capabilities, as there are numerous mission specialties that are classified.

There are numerous host platforms that can support SDV operations, such as various naval and nonnaval surface ships, and USN fast attack submarines configured with a DDS, which is a deep submergence system that is attached to specially modified submarines for submerged launch and recovery of SDVs, SEALs, combat rubber raiding craft, or other equipment (US Navy 2003, 3-19). When employed, it provides an underwater mobility capability that allows for clandestine infiltration of enemy-held areas.

The newest piece of equipment fielded by NSW and belonging to the SDVT is the ASDS. Operational experience in the 1980s led USSOCOM to look for a new, covert

SEAL insertion vehicle to replace and augment the existing SDV (Arena et al. 2001, 1). Much about this capability is shrouded in secrecy, but the ASDS provides a known improvement over the SDV in that it is a dry submersible minisubmarine that allows for a further transit capability at higher speeds. Capable of transporting a SEAL squad from either surface ships or submarines, the ASDS features a pressurized, dry interior and a lockin-lockout chamber, vastly improving the comfort factor over the SDV by allowing SOF operators to remain warm and dry, affording a degree of comfort that enhances the probability of mission success.

#### NSW Command and Control

Once a NSWRON completes predeployment training, it deploys to a combatant commander's area of responsibility. The NSWRON is then referred to as a Naval Special Warfare Task Group, consisting of one or more subordinate NSWTUs. NSWTUs can be further task organized into Naval Special Warfare Task Elements tailored to meet "a specific operational requirement" (Commander, Naval Special Warfare Command 2002, 3).

Theater commanders, through their respective TSOCs or numbered fleet commanders, exercise the day-to-day operational control of NSW forces in each theater (US Navy 2003, 4-1). TSOC commanders exercise operational control of NSW forces in theater through a Naval Special Warfare Unit, which assumes operational command and control of NSW forces while maintaining a "dual-hatted" relationship between the TSOC and theater naval forces (US Navy 2003, 4-5). There are currently four Naval Special Warfare Units, located in the European Command, Central Command, and Pacific

Command theaters, and they provide command and control of NAVSOF deployed to that theater.

NSW has a long history of supporting US Naval Forces. Although today's NSW mission has grown significantly since its UDT mission of World War II, it still maintains a critical role in support of amphibious operations and conventional naval forces. One of its key mission essential tasks remains to "conduct hydrographic reconnaissance and demolition of obstacles from the high water line out to three and a half fathoms (21 feet) and other pre-assault tasks in support of amphibious operations" (US Navy 2003, 3-12).

Traditionally, SEALs support USN operations as part of an amphibious readiness group. In 1992, as force requirements shifted to meet the uncertainties of the post Cold War world, deploying Atlantic Fleet carrier battle group commanders called for an organic NSW capability to support combat search and rescue; helicopter visit, board, search, and seizure; and noncombatant evacuation operations (Katana 1993, 61). SEAL Team EIGHT at the Naval Amphibious Base in Little Creek, Virginia implemented the concept of integrating NAVSOF into carrier battle group operations, which ultimately led to the routine deployment of SEAL platoons as part of carrier battle groups with the designation of "Strike Platoon" (Katana 1993, 61).

Since the implementation of NSW 21, NSW no longer maintains a continuous presence aboard USN ships. Instead, a deployed Naval Special Warfare Task Group will assign liaison officers to be present at the fleet battle staff level, with NSW forces designated to support USN surface forces. However, when NAVSOF is embarked aboard ships, they are under the operational or tactical control of the fleet commander, forming an afloat NSW TU.

### Naval Special Warfare and Sea Power 21

The emergence of Sea Power 21, the USN's transformational vision for the twenty-first century, has presented NSW unique opportunities to capitalize on its recent reorganization and improve its war-fighting function. How NSW will employ synergism, exploit asymmetrical strengths in a network-centric environment, and align its efforts in a global joint environment in support of Sea Power 21 will be explored in the next chapter.

## CHAPTER 4

### NAVAL SPECIAL WARFARE AND SEA POWER 21

A future force that is defined less by size and more by mobility and swiftness, one that is easier to deploy and sustain, one that relies more heavily on stealth, precision weaponry and information technologies. (DOD 2003b, 3b)

#### *Transformation Planning Guidance*

The *National Security Strategy* outlines how national interests will be maintained, and its military derivative the *National Military Strategy* establishes the imperatives of how the US military will evolve. These two sources outline how the United States will engage against perceived threats. As the US meets both the challenges and the realities of a post 11 September 2001 world, future military operations will vary in degree of complexity and form. While the US most definitely holds unparalleled superiority in what is called conventional warfare, modern adversaries are operating asymmetrically. They are finding the available cracks in the American behemoth with precision and accuracy. This ability effectively challenges US military strengths and therefore threatens US global interests. Plentiful littoral and maritime environments, coastal populations, and sustainment areas provide potential enemies an environment to continue to exploit this advantage.

Sea Power 21 serves as the foundation of the USN's transformational efforts, and, as its vision for the twenty-first century, it addresses how the USN will maintain its ability to dominate the maritime battle space and employ technological advances to maintain the advantage over adversaries. Chapter 1 discussed the three Sea Power 21 enablers, the three Sea Power 21 organizational processes, and FORCEnet, the

integration of warriors, sensors, networks, command and control, platforms, and weapons into a fully netted, combat force (Clark 2002b, 34).

This chapter focuses on how today's NSW is applying its unique capabilities, implementing the transformation challenges issued by Defense Secretary Rumsfeld, and is ensuring the continued and expanding effectiveness of NAVSOF missions and operations in a global Sea Power 21 and FORCEnet environment. In the context of the primary research question, the two Sea Power 21 enablers of Sea Basing and Sea Strike, as well as the organizational process of Sea Trial as they relate to modern NSW will be analyzed.

### Sea Basing

Sea Basing is the core of "Sea Power 21." It is about placing at sea--to a greater extent than ever before--capabilities critical to joint and coalition operational success: offensive and defensive firepower, maneuver forces, command and control, and logistics. (Moore et al. 2003, 80)

The maneuvering of forces can be defined as "a movement to place ships, aircraft, or land forces in a position of advantage over the enemy" (Chairman of the Joint Chiefs of Staff 2003, 316), and the ability for military forces to be able to freely maneuver within the battle space is paramount for operational success. The US ability to sustain access to the world's oceans and littorals remains a strategic, operational, and tactical imperative.

The first enabler for Sea Power 21, Sea Basing, seeks to place at sea the firepower, maneuver forces, command and control, and logistic functions that are critical to modern US military operations. Sea Basing serves as the foundation from which offensive and defensive fires are projected, making Sea Strike and Sea Shield realities

(Clark 2002b, 36). Positioning US forces afloat in international waters allows them to have the legal status of US sovereign territory. This serves to underscore the necessity of this capability, as access to foreign bases may no longer be assumed. This can greatly affect the execution of operational plans, evidenced by the denial of in-country basing of US forces by Turkey during the early phases of Operation IRAQI FREEDOM (OIF). Today's allies may deny tomorrow's request for unrestricted access to facilities and overflight rights at the time of future crisis. Sea Basing mitigates this risk by capitalizing on the inherent mobility and security of ships at sea to reduce the dependence on foreign seaports and airports, allowing for a pre-positioning of forces, and minimizes the need to build up forces ashore. Sea Basing also allows the joint force commander to introduce combat power beyond the enemy's battle space and operate unopposed in the most mobile and most secure operational environment available, the sea. The capability to sea base forces does not resolve the US basing and overflight issues, and at this time is limited to small numbers of forces for limited periods of time. However, this capability is conducive to SOF, as SOF operates in force numbers that are relatively small as compared to conventional forces.

In addition to providing fires from various sea-borne weapon systems, command and control, and logistical support, Sea Basing provides SOF with the ability to conduct operations from USN ships serving as afloat forward staging bases. Capabilities and concepts supporting Sea Basing and permitting accelerated deployment and employment times will be achieved by the combination of forward-deployed elements of the enhanced sea base, intra-theater high speed sealift, and rapidly deployable forces (US Navy 2002b, 24).

Sea Power 21 brought about a change in the deployment of traditional amphibious readiness groups with the introduction of the expeditionary strike group. The idea behind the expeditionary strike group is to provide regional combatant commanders with a more robust and capable sea-based force. The expeditionary strike group still consists of the traditional forces associated with the amphibious readiness group (SEALs, Marines, and associated armor, artillery, aircraft, and vehicles), but are now augmented with naval surface combatants and an accompanying submarine. This upgrade in capabilities will enhance the combat effectiveness of amphibious operations over the shore by adding organic air defense, undersea warfare, a Tomahawk land-attack missile capability, and strike capability that increases its overall strategic impact.

Deploying to the Pacific, European, and Central Commands, NSW performs fleet support missions, such as preassault tasks, in support of amphibious operations, or visit, board, search, and seizure as part of maritime interdiction operations, with NSW adding “a wide range of specialized options for successfully meeting future crisis requiring innovative and highly capable force packages” (Katana 1993, 63). Maritime interdiction operations are usually conducted to support international sanctions and embargoes against a designated country, or to deny the use of the seas for transit of personnel and equipment in support of international terrorism. NAVSOF demonstrated their versatility in combined joint operations in December 2002 as part of an international effort tasked with patrolling the Arabian Sea to locate members of the Taliban attempting to escape Afghanistan. Spanish special operations personnel from the Spanish frigate *Navarra* stopped the North Korean ship *So San* in the Gulf of Aden with the support of NAVSOF and explosive ordnance disposal personnel. Found on board were fifteen Scud missiles



complete with high-explosive warheads (Warrick 2003), as well as rocket-fuel additives and an assortment of related chemicals. Although the *So San* was eventually released and allowed to proceed to its destination in Yemen, this most recent example highlights NAVSOF's ability to utilize Sea Basing to conduct strikes from the sea.

Although the strategic missions of the expeditionary strike group and carrier strike group reflect the strategy of maritime dominance and global presence, they provide the ideal platform for staging and executing NAVSOF missions. A special operations unit, however, is too small to serve the purpose envisioned in a sea-based strategy (Hendrix 2003, 61), but rather NAVSOF represent the ability to sustain, launch, and recover operations from the sea.

The concept of utilizing USN surface ships solely as an afloat forward-staging base to host SOF operations is a relatively new one. Recent examples include the USS *America* (CV-66) embarking SOF during Operation Uphold Democracy in Haiti and the USS *Kitty Hawk* (CV-63) embarking NAVSOF and other forces during Operation Enduring Freedom (OEF) for operations in Afghanistan. In these instances, the use of aircraft carriers provided complete command and control, provided joint basing, and accommodated associated SOF helicopter assets. While this allowed NAVSOF to mass their effects throughout the unified battle space by providing independence, mobility, and security, the cost of the mission was that USS *Kitty Hawk* remained outside the normal battle group rotation cycle, causing the other carriers in service to extend deployments (Keeter 2002b), and thus proved to be a short-term fix that had the undesirable effect of disrupting subsequent rotation cycles.

Commander, Naval Special Warfare Group FOUR, one of four commands under Naval Special Warfare Command that maintains and deploys NAVSOF to support the requirements of theater commanders, has been designated the NSW Surface Mobility Proponent. In accordance with Commander, Naval Special Warfare Command Instruction 5420.2A, Commander, Naval Special Warfare Group FOUR has been tasked to “serve as the primary advisor to Commander, Naval Special Warfare Command to identify and prioritize current and future requirements, technologies and experiments to improve NSW Surface System capabilities.” Commander, Naval Special Warfare Group FOUR fulfills this requirement to enhance NSW surface system capabilities by recommending new surface requirements. They have developed an all-encompassing NAVSOF surface mobility plan, called the Advanced Littoral Operating Craft (ALOC), which is made up of four classes of ship capabilities to support not just NAVSOF, but joint SOF as well. Class I ALOC envisions dedicated platforms when needed for movement in the littoral areas and provides SOF basing and support. This entails USN, Maritime Sealift Command, or leased ships that serve as an afloat forward staging base and are capable of carrying a full NSWRON, as well as class II and class III vessels. Class II ALOC pertains to theater mobility (MK V SOC), and class III ALOC pertains to tactical mobility (RIBs, Special Operations Craft-Riverine, SDV, ASDS). These platforms and their capabilities as they relate to NAVSOF were discussed in depth in chapter three. Class IV ALOC pertains to air mobility and is beyond the scope of this thesis. Several class I ALOC that are either currently employed or under development include the high-speed vessel-X1 (HSV-X1) *Joint Venture*, a new class of surface combatant called the Littoral Combat Ship (LCS), and the USN’s submarine force.

The HSV-X1 (see figure 4) is an experimental, high-speed ocean going vessel capable of speeds of fifty knots. This former New Zealand car ferry was showcased during exercise Millennium Challenge, a major joint integration exercise conducted in 2002. In this exercise, the HSV-X1 served as a maritime forward operations base as part of a joint special operations task force. The successful validation of this concept led to its modification to carry combatant craft, amphibious landing craft, and helicopters, and has since supported NAVSOF's efforts in OIF by providing supplies, shelter, and spare parts for NSW personnel and their combatant craft as they operated in Khawr Az Zubayr, the waterway that links Umm Qasr to the Tigris River to the north, and the Persian Gulf to the south (Dao 2003, 4). The HSV-X1 also conducted maritime interdiction and mine countermeasure operations. Without the HSV-X1, NAVSOF operations would require extensive logistics support that would potentially add days to a mission, as they would rely on bases in Kuwait for resupply. Instead, this afloat forward-staging base allowed NAVSOF to seize the initiative, reduce risk, facilitate maneuver in the battle space and achieve decisive results, while employing this technology in supporting combat operations.

The LCS is the USN's next generation surface combatant that is being designed to be "optimized for war fighting in the littoral environment" (Mullen 2003, 69). This ship is being designed to perform three key missions: mine warfare, antisubmarine warfare, and antisurface warfare. The basic support to NSW will be built into the baseline of the LCS (Kessner 2003). Although special operations is currently not one of the LCS's mission areas, NSW requirements are being built into the design of this platform. As a member of the LCS executive steering committee, Rear Admiral Albert M. Calland III,

Commander, Naval Special Warfare Command, is in a position to include NSW requirements in the LCS and potentially in all future USN ship designs.

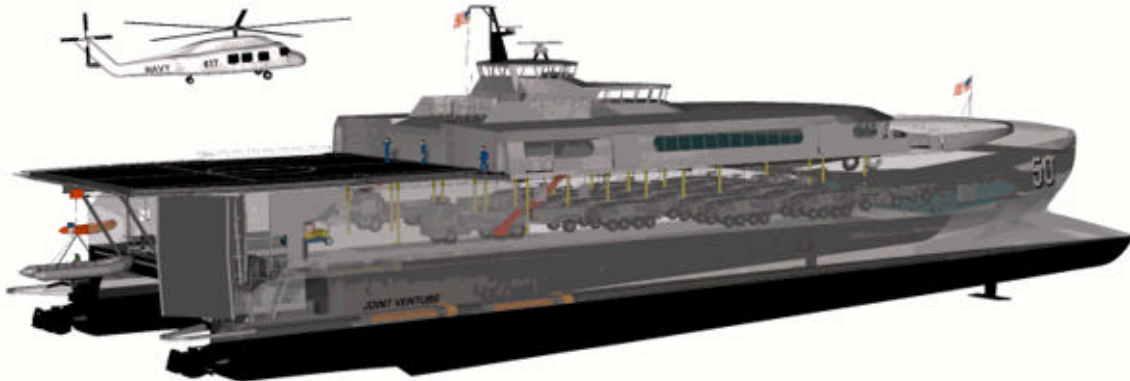


Figure 4. HSV-X1

*Source:* Naval Warfare Development Command 2003.

Modules for the LCS missions will be designed to plug in or plug out as required, based on specific mission requirements, and are designed to provide commanders the needed operational flexibility. This gives the ship a multimission capability, and with the inclusion of a potential NSW specific module, will allow the LCS the capability to embark a NSW TU consisting of approximately eighty SEALs, support personnel, and an SBT detachment, along with two eleven-meter rigid-hulled, inflatable boats (Naval Warfare Development Command 2003). As a future sea-basing platform for NSW, the LCS is expected to be able to support a variety of NAVSOF missions, to include visit, board, search, and seizure, maritime interdiction operations, and NSW helicopter operations, and allow for the asymmetrical advantage of operational independence, preservation of the element of surprise for sea-borne strikes, and the ability to reconstitute forces at sea.

The modern USN submarine is a unique, capable platform whose major role is to support national objectives through sea control and strategic deterrence. Submarines are also tasked with a variety of nontraditional missions, and because of their capability of operating undetected, are often employed to clandestinely insert and extract NAVSOF. In the context of Sea Basing, DDS-configured submarines represent the most clandestine method of launching and recovering SDVs and SEAL operators. Currently, the USN maintains five fast attack Los Angeles class submarines that are modified to carry the DDS. Originally designed to seek and destroy enemy submarines and surface ships, collect intelligence, and conduct antiship and strike warfare, these reconfigured DDS-capable submarines have the capability to launch and recover NAVSOF anywhere they can operate.

Current USN submarines, however, are not designed or configured to host NAVSOF and their equipment for lengthy periods of time. As a result, SEAL tactical skills tend to depreciate during lengthy underway periods. The Sea Power 21 vision, coupled with the emphasis on being able to conduct operations in the joint environment, has driven the USN to modify four former ballistic-missile-carrying submarines designated as SSBNs. Originally slated to be decommissioned as a result of the latest Nuclear Posture Review (Nagle 2003, 3), these four SSBNs are redesignated as guided-missile submarines, designated as SSGNs, and will be capable of carrying up to 154 Tomahawk cruise missiles and feature specially designed work areas for sixty SOF operators (Keeter 2002c, 1). The intent of the SSBN to SSGN conversion is to allow this clandestine platform to carry an arsenal of conventional weapons, as well as launch, recover, and support NAVSOF for extended periods of time.

The first SSBN-SSGN submarine scheduled for conversion is the USS *Florida*, which served as the centerpiece of Exercise Giant Shadow conducted in January 2003. In addition to validating its conventional strike capability, it served to validate a new role in supporting the Navy's expanding missions in establishing access, attacking land targets, and mounting joint special operations missions (Nagle 2003, 3). The SSGN concept was developed with special operations support as a primary role in mind, and is envisioned to provide designated storage and berthing areas, exercise equipment, and a virtual reality weapons training facility to maintain depreciable shooting skills. Additionally, the SSGN will be able to host two ASDSs, two DDS housing two SDVs, or a combination of both.

The newest class of submarine, the Virginia class, was developed to function in both deep water and the littoral regions, with missions to include antisubmarine warfare, land attack, covert intelligence gathering, and SOF support (Heffron 2003, 27). This class of submarine, scheduled for delivery to the USN in June 2004, is designed to complement NAVSOF operations. Designed to be modular to easily facilitate mission changes, all Virginia class submarines feature a nine-person lockout trunk, the ability to host the ASDS or DDS-SDV combination, and storage spaces designed to accommodate NAVSOF personnel and their equipment.

Today, US nuclear powered submarines are an integral part of any US Navy, joint or multinational forces team. The submarine's capability of covertly staying on station for lengthy periods of time and conducting special operations from a submerged platform makes this NSW-conducive sea-basing platform ideal to enhance operational effectiveness.

## Sea Strike

The Navy's once primary mission of blue-water, open-ocean combat against the Soviet Navy is now less important than the ability to project deterrent and combat power against targets on shore and perhaps far inland. (Carey 1998, 43)

The second enabler for Sea Power 21 is Sea Strike, the ability to project offensive operations sustainable from the sea. Alfred Thayer Mahan, author of the classic *The Influence of Sea Power Upon History*, argued that the central theme of naval strategy must be command of the sea (Lavell 2003, 15). As discussed in chapter one, the USN's 1992 white paper titled "...From the Sea" served to prepare the naval service for the twenty-first century by defining the shift in strategy from sea control to power projection, with power projection being a key enabler to littoral warfare, allowing for maritime dominance and the ability to win decisively in war.

Naval forces are often the nation's first responders to a crisis. USN ships and their embarked forces are usually the first to arrive when a crisis erupts, and thus often influence the course of events and set the conditions for decisive operations. Capitalizing on the strategic agility, operational maneuverability, precise weapons employment, and indefinite sustainment of naval forces, Sea Strike is a broadened naval concept for projecting dominant and decisive offensive power from the sea in support of joint objectives (Hanlon et al 2002). Naval expeditionary forces, deploying from carrier strike or expeditionary strike group, will now employ synergism rather than individual actions to project offensive power from the sea. The *Naval Transformational Roadmap* identifies four transformational concepts within the Sea Strike framework: persistent ISR, time-sensitive strike, information operations, and ship-to-objective maneuver.

As discussed in chapter 3, SR is one of nine SOF core tasks that utilizes the physical presence of SOF operators, coupled with high technology equipment, to conduct real time reconnaissance and surveillance activities of potentially time-sensitive information in denied or politically sensitive environments. Utilizing Sea Basing and maneuvering from the sea, NAVSOF can guide ship- and submarine-launched weapons precisely to their targets by using state-of-the-art communications and illuminating equipment. Additionally, NAVSOF can support air interdiction operations by US and coalition strike aircraft by directing precision-guided munitions and, if required, direct follow-on strikes and battle damage assessment.

For example, NAVSOF were tasked to gather intelligence on the al-Qaeda terrorist network in the caves of Zhawar Lili, Afghanistan, in support of OEF. Instead of finding clues regarding the whereabouts of Osama bin Laden, they found an estimated one million pounds of ammunition, ordnance, and antiaircraft weapons within the network of caves. Additionally, located nearby were several terrorist safe houses, classrooms, and bands of armed al-Qaeda fighters. What started out as just an intelligence-gathering mission turned into a joint operation consisting of SEALs, Marines, Air Force Special Operations personnel, and law-enforcement officials directing Navy, Marine Corps, and Air Force bombers to drop hundreds of satellite-guided bombs in an effort to seal the caves and destroy the last remnants of the terrorist camp (Crawley 2002). For over eight days, in addition to supporting joint operations, NAVSOF supported USN Sea-Strike operations from the aircraft carrier USS *John C. Stennis* by directing air strikes on targets, such as al-Qaeda fighters, cave entrances, and weapons.



Equipped with secure and reliable tactical connectivity that can be integrated into a networked battle space consisting of fused data, command and control and platform-sensor integration, NAVSOF can collect, organize, and disseminate timely mission essential information specifically tailored to either the carrier strike group or joint commander's needs. This ability allows NSW to offer a significant contribution to time-sensitive targeting by decreasing the time it takes to find, and ultimately destroy targeted objectives. Persistent ISR provides, in conjunction with networked joint and national capabilities, prompt and precise battle space awareness at any time and in any weather (US Navy 2002b, 10). Despite airborne surveillance platforms, such as the MQ-1 Predator unmanned aerial vehicle or the USN's P-3 Orion surveillance aircraft, the most accurate and real-time ISR asset is the human on the ground. The P-3 Orion aircraft's primary mission of Cold War era submarine hunting and maritime patrol is being refocused to include support to littoral missions and strike weapon delivery. Its ability to support the NAVSOF ISR mission was demonstrated in OEF during Operation Anaconda in March 2002. Flying over the sharp ridges of the Shah-e-kot Valley in eastern Afghanistan, the P-3s carried SEALs, who directed SOF on the ground during the ambushes and clashes with enemy fighters in the mountains (Reade 2003). Using organic infrared sensors to pinpoint enemy al Qaeda troops, NAVSOF were able to transmit information regarding enemy locations to SOF on the ground and strike aircraft overhead. NAVSOF, with their high-tech ability to downlink imagery from the P-3 or uplink targeting data and target coordinates, played a pivotal role as part of a networked battle space that could facilitate a rapid and fluid time sensitive targeting environment while

directing follow-on air strikes. This is evidenced by the fact that over 80 percent of USN strike aircraft involved in OEF launched without predesignated targets (Keeter 2002b, 1).

NAVSOF's ability to conduct strikes from the sea can serve as a solution to problems that pose difficulties to an operational commander's plan. During OIF, there was a major concern that Saddam Hussein and his Ba'athist followers would attempt to turn the tide of international political pressure through a catastrophic environmental disaster in southern Iraq by dumping massive amounts of oil into the Arabian Gulf (Commander, Special Operations Command 2003b, 8). If such an event had taken place, it would have presented the strategic implication of questioning the US's ability to pursue and succeed in the global War on Terrorism, affected the region's ecosystem and the health of its people, and had an associated economic impact. NSW mission planners identified five key nodes in the Northern Arabian Gulf that would have to be secured to prevent a possible environmental incident. Using a combination of NSW combatant craft, helicopters, SEALs, and Polish Special Forces, the two off-shore oil terminals, metering station, and two pipeline support valves were seized and secured simultaneously and captured intact in a brilliantly coordinated raid that prevented a repeat of the environmental and economic consequences of the first Gulf War. As previously discussed, the HSV-X1 served as a mother ship for NAVSOF and combatant craft, allowing these forces to conduct combined ship-to-shore Sea Strike operations in support of the war-fighting commander, to include leadership interdiction operations and maritime boarding and searches.

## Sea Trial

The Navy Warfare Development Command, reporting directly to the Commander, US Fleet Forces Command, will coordinate Sea Trial. Working closely with the fleets, technology development centers, and academic resources, the Navy Warfare Development Command will integrate wargaming, experimentation, and exercises to speed development of new concepts and technologies. They will do this by identifying candidates with the greatest potential to provide dramatic increases in warfighting capability. (2002b, 39)

Admiral Vern Clark

As part of the Naval Sea Systems Command (NAVSEA), the Maritime Special Operations Division, Naval Surface Warfare Center, Panama City (NSWC-PC), provides the technical expertise required to support the research, development, and acquisition of the unique maritime systems and equipment required to execute special operations in a maritime environment. Driven by NAVSOF mission needs statements, NSWC-PC works to support NSW future requirements and capabilities.

Sponsored by the Undersea Warfare Directorate of NAVSEA, exercise Giant Shadow was the USN's first sea trial experiment, and served to validate the concept of SSBN to SSGN conversion, as well as to improve NAVSOF's ability to conduct maritime special operations. NAVSOF, operating from the USS *Florida*, provided fully networked operations involving unmanned aerial vehicles (simulated by the "Hairy Buffalo" system), unmanned underwater vehicles, and nuclear-biological-chemical sensors to provide real time intelligence that allowed NAVSOF to recommend the appropriate time-critical strike course of action. The Hairy Buffalo system is a time-critical targeting system being incorporated into the P-3 Orion to mass the combat power of naval air and ground forces. It was used to conduct intelligence preparation of the

battlefield and provided real-time ISR for NAVSOF forces embarked on the SSGN and on the ground. This system provided a common communications interface that allowed ground, surface, and undersea elements to operate together seamlessly in a Sea Strike operation (Behrman 2003).

Giant Shadow also demonstrated how network-centric warfare capitalizes on the synergetic and technical superiority of linking together numerous assets via a command, control, communications, computers, intelligence, reconnaissance, and surveillance network of communication links, sensors, and information systems. NAVSOF played a key role in the Giant Shadow scenario, which was to confirm reports of a chemical weapons plant operating on a remote island and provide the critical information required to generate the appropriate strike courses of action for the USS *Florida*. This exercise demonstrated the Sea Strike, Sea Basing, and Sea Trial aspects of Sea Power 21 for the SSGN and NAVSOF, as well as the ability to provide the joint war-fighting commander with a wide range of war-fighting options to decisively dominate the battle space.

Several other innovative concepts are being explored by NAVSEA as part of the Sea Trial initiative to support NAVSOF missions. Although there exists a robust list of ongoing and future NSW specific projects being researched by NAVSEA, several notable unclassified programs currently being researched include the vertical launch capability of an SDV from the SSGN launch tubes, the semi-autonomous hydrographic reconnaissance vehicle (SAHRV), the SEAL weapon and surveillance platform (SEAWASP), and the Sea Predator.

The ability to launch and recover SDVs from a host submarine is currently limited to submarines configured to operate the DDS, but one concept being explored as a

possible alternate method of launching and recovering the SDV without the use of a DDS involved the SSGN and its former vertical ballistic missile launch tubes (see figure 5).

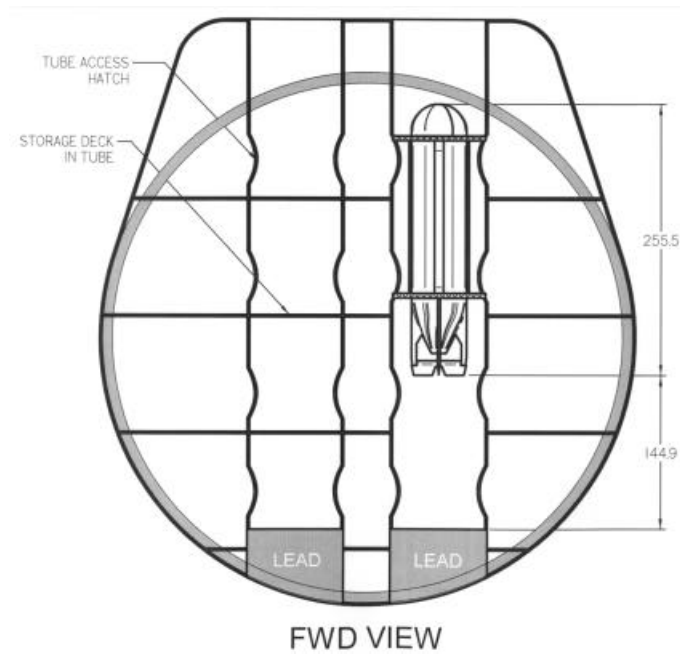


Figure 5. SDV Vertical Launch from an SSGN

*Source:* Carl Walters, Naval Surface Warfare Center, Panama City, FL, Vertical Launch SEAL Delivery Vehicle (Briefing given to the Future Concepts Working Group, Tampa FL, December 2001).

This method of launch and recovery for the SDV provides the key operational benefit of not having to rely on the limited inventory of DDS for SDV operations, thus reserving their use on other submarines not equipped for vertical launch. Another operational benefit is redundancy, as multiple SDVs could be embarked vice one, allowing for tandem or multiple SDV operations. Several technical issues arise when considering this method of employment, such as vertical to horizontal transitional

procedures for SDV operations in this configuration, possible SDV modifications, and the physical access in and out of the missile tubes.

The SAHRV (see figure 6) is a small portable autonomous underwater vehicle that is designated to perform shallow water reconnaissance in support of NAVSOF amphibious and hydrographic mapping operations, as well as classification of minelike objects and obstacles in the very shallow water, or littoral, region. Originally designated as the remote environmental monitoring unit system, its mission is to support the Navy's mine warfare efforts. Two remote environmental monitoring unit systems are currently in use by the Very Shallow Water Mine Countermeasure Detachment, a San Diego, California, based detachment composed of SEALs, NSW combatant craft, USN Explosive Ordnance Disposal units, and US Marines, whose mission is to clear mines in the very shallow water region in support of USN operations.



Figure 6. SAHRV

*Source:* Joel Peak, Naval Surface Warfare Center, Panama City, FL, Semi-autonomous Hydrographic Reconnaissance Vehicle/CSS Program Review (Briefing given to the Program Management Office of NAVSEA, 19 March 2003).

NAVSOF currently fields a modified version of the remote environmental monitoring unit system, designated as the SAHRV. Relying on a side-scan sonar system to identify underwater obstacles as well as scan sections of the ocean from the six-fathom (twenty-one-foot) mark to the ten-foot mark, the SAHRV can be deployed via NAVSOF surface combatant craft, with the capability to be launched from an SDV currently being developed. Guided by transponders deployed by NAVSOF personnel, coupled with the ability to search an eight-hundred-by-one-thousand-yard area in about 3.5 hours (Erwin 2001, 26), the data obtained from the SAHRV enables NAVSOF personnel to develop hydrographical data in support of amphibious operations. Future planned product improvements to the SAHRV will enable NAVSOF to monitor ongoing operations in real time, with the ability to reprogram the system and change mission parameters at any point throughout the mission.

The SEAWASP is a conceptual unmanned underwater vehicle system (figure 7). that utilizes the SDV or the ASDS as a host platform. The SEAWASP is capable of conducting the same hydrographic reconnaissance mission as the SAHRV, but capitalizes on the clandestine capability of the SDV or ASDS to mitigate the risk of mission compromise otherwise presented by surface craft insertion.

Tests conducted by the Special Warfare Division at NSWC-PC concluded that the SDV is a viable platform from which to operate the SEAWASP (Coastal Systems Station, Dahlgren Division, Naval Surface Warfare Center 2001, 9), and is able to launch, rendezvous, and recover the system with only minor speed consequences. The SEAWASP Support Package installed in the SDV or ASDS allows the SEAL operator to control the actions and monitor the progress of the SEAWASP via a fiber optics cable in

either automatic or manual mode. In the automatic mode, the SEAWASP follows a preplanned mission profile without human intervention; in the manual mode, the SEAL operator can control the vehicle.



Figure 7. SEAWASP Concept

*Source:* Coastal Systems Station, Dahlgren Division, Naval Surface Warfare Center 2001, 2.

The Sea Predator (see figure 8) is another innovative concept being explored by the Special Warfare Division at NSWC-PC. Using the SDV within this concept would involve adapting the SDV for fully autonomous operations by removing the SDV's life support systems (and thus the onboard human operator is removed) and adding a snorkeling diesel generator capability. This capability does not degrade any of the current methods for which the SDV may be employed, such as SSN/SSGN, surface ship, or helicopter. Rather, by removing the human element and associated life support requirements, the diesel generator allows for long distance missions, long on-station time



missions, or a combination of both (Coastal Systems Station, Dahlgren Division, Naval Surface Warfare Center 2003, 27). Based on environmental conditions, such as currents, sea temperature, and ingress and egress speeds, the Sea Predator could potentially conduct missions up to three weeks in duration. Command and control will be via an on-board automated system that will execute preprogrammed instructions, and through continuous communications with a human operator spatially distanced from the Sea Predator to dictate changes in mission parameters or implement additional tasks.

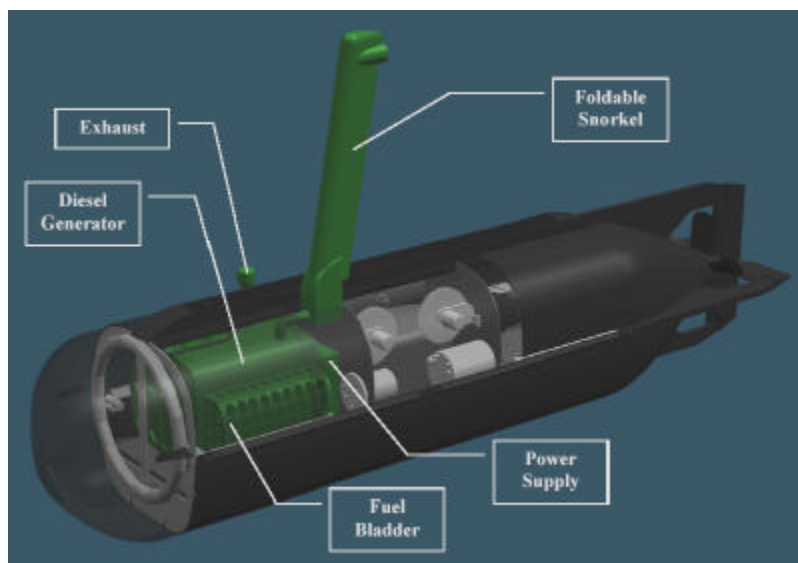


Figure 8. Sea Predator

Source: Coastal Systems Station, Dahlgren Division, Naval Surface Warfare Center 2003, 16.

In addition to being able to deliver several mission-specific war-fighting payloads, such as missiles for time-critical strikes, DA operations against designated ships, submarines or piers, torpedo delivery, and sensor emplacement, the Sea Predator is ideally suited for ISR missions (Coastal Systems Station, Dahlgren Division, Naval

Surface Warfare Center 2003, 42), to include signals intelligence to gather information about the battle space, and utilization of sensors to determine the chemical, biological, and radiological agents present.

The validity of utilizing unmanned underwater vehicles in support of NAVSOF was demonstrated in exercise Giant Shadow, when NAVSOF returned simulated contaminated soil samples as part of the exercise scenario to their host SSGN via unmanned underwater vehicle for testing. The SAHRV, which is currently fielded by NAVSOF, has expanded NSW capabilities in the littorals to conduct minefield and hydrographic reconnaissance missions. Although the Sea Predator and the SEA WASP systems are still in the conceptual phase, they represent some of the unclassified projects being developed as part of the Sea Trial organizational process that will integrate new and innovative technologies able to transmit environmental data and ISR data, such as radio transmissions and optical data, that will enable NAVSOF to more precisely collect, organize, and disseminate mission essential information, conduct mission analysis, and generate the appropriate course of action to decisively meet current and future NSW mission requirements.

#### FORCEnet

Network-centric warfare theory and practice came together with great effect for US special operations forces fighting in Afghanistan. (Ackerman 2003a, 17)

Brigadier General James Parker

The Information Age, with its current and emerging technological advances, has become the cornerstone of the US military's ability to maintain combat capabilities and effectiveness. The theory of network-centric warfare lends itself to the concept of

network-centric operations, which for modern warfare integrates sensors, networks, weapons, information, and people to capitalize on the synergetic effects to provide a more precise and efficient utilization of combat power. Today's ability to collect and disseminate information has unified the battle space like no other period in history. This vital asymmetric advantage of information superiority will increase responsiveness and survivability by allowing US forces to disperse while focusing offensive and defensive firepower over tremendous distances (Mayo et al. 2003, 42).

One of NAVSOFs core capabilities is the ability to clandestinely conduct ISR operations in denied areas, as well as having the means to acquire, share, and exploit vast information collected in the battle space. The key to being able to effectively execute this key operational task resides in the training and experience of the modern NSW warrior and his high-tech state-of-the-art equipment.

Network-centric warfare proved to be a key enabler for US SOF to rout the Taliban in Afghanistan (Ackerman 2003a, 17), as these forces were trained to maintain battlefield situational awareness utilizing systems that were conducive to a network-centric environment, allowing them to operationally link themselves with other services in a networked battle space. As the FORCEnet emphasis is warrior-centric and resides on the force and not on the network, the central, defining quality of SOF has always been the distinctive personnel-the SOF warrior (Commander, Special Operations Command 2003c, 65). NSW's well-established and strong emphasis on developing and outfitting the warrior provides a firm basis for NSW's FORCEnet involvement.

The ability to conduct command, control, communications, computers, intelligence, reconnaissance, surveillance, and the employment of reliable

communications, is the key to successful SOF operations. To ensure SOF operators remain well equipped, USSOCOM is the only unified commander embodied with acquisition responsibilities to procure SOF-related equipment. This equipment must be compatible with the architectural framework of information-driven joint warfare, which will allow a common operational picture that allows leaders, regardless of service, to develop an understanding and synchronization of the battle space.

In summary, this chapter presented evidence regarding how NAVSOF is structured, equipped and resources to function in a joint and networked environment. Utilizing a recent reorganization to improve its war-fighting functions, NSW has postured itself to allow traditional and emerging missions to be integrated within the framework to support Sea Power 21. The final chapter of this thesis will draw conclusions on the contributions of NSW and Sea Power 21.

## CHAPTER 5

### CONCLUSIONS

This past year demonstrated the value of naval forces projecting decisive, joint power across the globe. Our task: continue to accelerate the advantages the US Navy brings this nation.

ADM Vern Clark, CNO Guidance for 2004

Many challenges face the US military as it transforms and evolves in order to maintain the forces and capabilities required to face the post Cold War threat. Today's enemy is one that is no longer well defined, but rather has become an amorphous, transnational nonstate actor. Cold War era methods of conducting warfare will not eliminate the asymmetrical threats that are found in today's contemporary operating environment. Thus, the transformation of defense strategy and force organization reflects the importance of US forces remaining a formidable and key instrument of power to ensure a strong national defense, as well as the ability to continue to influence world events.

The USN has come to embrace these changes by employing the latest technology and asymmetric advantages to establish and maintain the maritime battle space, focusing its efforts and resources in the littoral region articulated in the Sea Power 21 vision. This vision serves to better align USN efforts in global joint operations to defend the nation and defeat its enemies. Modern NSW forces support this vision by being adequately trained and resourced, thus providing unconventional alternatives to war-fighting commanders. NSW also plays an essential role in the successful execution of maritime

operations in a joint battle space, as well as against current and future adversaries in a multithreat, joint environment.

This thesis has presented evidence to support my assertions that modern NSW and its involvement in today's global joint operations are conducive to and supportive of several aspects of the Sea Power 21 vision. Chapter three and chapter four's study of the evolution and current posture of today's modern NSW leads the author to contend that, although the US maintains unquestionably the world's most advanced arsenal of high-tech weapons and technology, there will always be a need for the unique capabilities inherent to SOF in general, and NSW in particular. Emphasizing its ability to capitalize on speed and stealth, NSW is capable of striking from the sea to accomplish tactical missions of strategic importance, thus preserving American lives, protecting US interests, and supporting the War on Terrorism by hunting down and dismantling terrorist networks.

Commander, Naval Special Warfare Command's operational priority is "squarely and directly on the global War on Terrorism and what we in Naval Special Warfare can do in that regard" (Calland 2003, 1). Evidence has been presented that shows the two methods of NAVSOF operational employment: those that support naval tasking and those that support nonnaval tasking. Chapter 4 highlighted several examples of NSW involvement in maritime and leadership interdiction operations, methods used to deny the use of the sea for personnel and equipment transfer that is believed to be associated with international terrorism. This lends support to the author's assertions that NSW's efforts are supportive of and conducive to the Sea Strike and Sea Basing enablers of Sea Power 21. Further examples illustrated how NAVSOF supports both naval and nonnaval

taskings, such as intelligence and air interdiction operations and USN sea-strike missions, operating as a networked, ground-based force. In this example, NSW's versatility and compatibility in working either for the USN or as part of a joint special operations task force were demonstrated. Based on my knowledge and study of NSW capabilities, I would contend that NSW is postured to be able to accomplish both. Objective analysis and past NSW operational experience lead me to conclude that NSW maintains a war-fighting focus, and as a result of robust training possesses the capabilities to decisively execute missions regardless of command relationships. NAVSOF, as a result of recent transformational reorganization, has established a more efficient and functional USN and TSOC command and control relationships to best support operations within these environments. The evidence presented in chapter 4's analysis of NSW naval and nonnaval mission executions supports this claim.

Although the preponderance of after action reports and situation reports are only available through secure means, unclassified sources indicate that in the War on Terrorism NSW has supported more special operations than conventional naval operations. This may imply a minimal, or even questionable NSW-USN relationship. OPNAV N751, the Special Warfare Branch of the Expeditionary Warfare Division in the Office of the Chief of Naval Operations, coordinates matters pertaining to NSW-USN relationships. Led by a SEAL 0-6, this branch represents Commander, Naval Special Warfare Command and oversees the interests of NSW regarding resources, policies, and programs. This includes issues regarding Sea Power 21, as there is no formally tasked NSW--Sea Power 21 executive agent.

Although NAVSPECWARCOM is a component command under USSOCOM, NAVSOF has had a long operational relationship with the USN in support of USN operational requirements. Although historically tied to amphibious warfare since World War II, NSW has expanded its role to include new and creative methods of employment in support of USN and joint operations, as was evidenced during OEF and OIF. NAVSPECWARCOM maintains administrative responsibilities to the Chief of Naval Operations on matters regarding logistic, administrative, and personnel support. The *CNO Guidance for 2004* delineates how the USN has adopted a more proactive position in identifying and supporting maritime and joint special operations, directing part of its transformational efforts to “providing enhanced tactical support to SOF in our Navy capability” (Chief of Naval Operations 2004, 13). In the context of support to Sea Power 21, specific requirements are being built into the design of several current and proposed USN ships and submarines based on NSW inputs, and naval assets, such as the SSBN/SSGN conversion and the HSV-X1, have continued to illustrate NSW’s Sea Strike and Sea Basing capabilities. This demonstrates the USN’s paradigm shift from a global threat strategy to one that includes the support of future multidimensional joint warfare and the expansion of its littoral warfare capabilities. The USN has therefore come to recognize the strategic and operational advantages of supporting NSW and joint SOF operations on and from the sea, thus maintaining asymmetric advantage and synergistically meeting future war-fighting challenges.

The recent NSW force transformation, NSW 21, has served to enhance NSW’s war-fighting focus, as well as provide operational commanders a more capable and tailorable force to meet current and emerging theater requirements. This transformation



focuses on the nature of NSW deployments, as well as the management process governing deployment of senior leadership and mentors, and presents a new deployment concept that is being implemented today. The NSWRON thus deploys with robust experienced leadership and supporting staff, allowing for a greater capability of command and control, planning, and execution of NSW operations. As Sea Power 21 cites a capability for sea-based special operations forces to operate from the maritime domain (Lenox 2004, 51), NSW 21 provides enhanced NSW force interoperability and support to theater fleet commanders, as well as theater special operations commands.

In conclusion, NSW finds itself supporting a modern USN that has evolved from Cold War doctrinal methods and platforms. As it positions itself for twenty-first century warfare in the littoral regions, NSW must continue to take advantage of the USN's commitment to support joint warfare and strive for integration into USN strategy based on Sea Power 21. Sea Basing and Sea Strike serve as venues to enhance USN-NSW integration. These enablers allow NAVSOF to capitalize on the USN's war-fighting capabilities and thus enhance its ability to move to and strike quickly in a crisis area and introduce combat power to shape the battle space.

Successful execution of demanding maritime special operations requires the most advanced and capable equipment possible. As technology advances, today's modern equipment can quickly become dated, and on some occasions, obsolete. To maintain the most capable war-fighting forces, NSW must continue to develop future mission needs statements based on tomorrow's enemy and operating environment, continuing to commit monetary resources to the research, development, and acquisition of the next generation of personnel, equipment, and surface and subsurface combatant craft. NSWC-PC

provides the technical expertise to support NSW's future requirements, and as part of the Sea Trial organizational process provides the venue for integrating new and innovative technologies.

NSW's efforts, ranging from the NSW 21 force transformation to its maritime special operations capability to operate on, under, and from the sea utilizing a myriad of sea-borne platforms, demonstrate its commitment and future vision to continue to be the premier capabilities-based special operations force in the world. In sum, today's NSW consists of competent highly trained personnel and well-founded doctrine and equipment, bringing capabilities to the USN that conform to both the Sea Power 21 vision and the joint war-fighting team.

## REFERENCE LIST

- Ackerman, Robert. 2003a. Special Operations Forces become network centric. *Signal*, March, 17-21.
- Ackerman, Robert, and Beverly Mowey. 2003b. War is no impediment to transformation. *Signal*, April, 64-74.
- Ansarov, Sonya. 2003. Special Boat Teams: The 'wave' of future fight. *Navy News*. Web page. Available from [http://www.news.navy.mil/search/display.asp?story\\_id+9933](http://www.news.navy.mil/search/display.asp?story_id+9933). Internet. Accessed on 30 January 2004.
- Arena, Mark, John Birkler, Malcolm Mackinnon, and Denis Rushworth. 2001. *Advanced SEAL Delivery System: Perspectives and options*. Santa Monica, CA: RAND Publishing.
- Baer, George. 1994. *One hundred years of sea power*. Stanford, CA: Stanford University Press.
- Behrman, Amy. 2003. NAVAIR's hairy buffalo provides network for sea strike. *Navy News*. Web page. Available from [http://www.news.navy.mil/search/display.asp?story\\_id+5749](http://www.news.navy.mil/search/display.asp?story_id+5749). Internet. Accessed on 30 January 2004.
- Belida, Alex. 2001. U.S. forces are preparing for military action in response to last week's terrorist attacks. *VOA Military News*. Web page. Available from <http://www.globalsecurity.org/military/library/news/2001/09/mil-010917-39612c8b.htm>. Internet. Accessed on 30 January 2004.
- Bosiljevac, T. L. 1990. *SEALs: UDT/SEAL operations in Vietnam*. New York: Ballantine Books.
- Bush, George W. 2002. Address at 2002 Graduation Exercise of the United States Military Academy at West Point, New York. Web page. Available from <http://www.state.gov/r/pa/ei/wh/rem/10648.htm>. Internet. Accessed on 30 January 2004.
- Calland, Bert. 2003. SEALs focus is on terrorism, core missions, interoperability. *Defense Daily* 219, no. 7 (July): 1. Web page. Available from <http://proquest.umi.com/pqdweb?index=0&did=000000357010901&SrchMode=3&sid=2&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1075669897&clientId=5094>. Internet. Accessed on 30 January 2004.
- Carey, Merrick. 1998. Power projection for the new world disorder. *Sea Power* 41, no. 9 (September): 43.

- Carnesale, Albert, Paul Doty, Stanley Hoffmann, Samuel Huntington, Joseph Nye Jr., and Scott Sagan. 1983. *Living with nuclear weapons*. New York, New York: Bantam Books, Inc.
- Cebrowski, Aurthur, and John J. Garstka. 1998. Network centric warfare: Its origin and future. *Proceedings* 124, no. 1 (January): 28.
- Chairman of the Joint Chiefs of Staff. 1998. Joint publication 3-05, *Doctrine for joint Special Operations Forces*. Washington, DC: Government Printing Office, 1 April.
- \_\_\_\_\_. 2001a. Joint publication 3-0, *Doctrine for joint operations*. Washington, DC: Government Printing Office, 1 September.
- \_\_\_\_\_. 2001b. Joint Publication 3-02, *Doctrine for amphibious operations*. Washington, DC: Government Printing Office, 1 September.
- \_\_\_\_\_. 2003. Joint Publication 1-02, *DOD Dictionary of military and associated terms*. Washington, DC: Government Printing Office, amended through June 2003.
- Chief of Naval Operations. 2004. *CNO guidance for 2004*. Washington, DC: Department of the Navy, January. Web page. Available from <http://www.chinfo.navy.mil/navpalib/cno/clark-guidance2004.html>. Internet. Accessed on 30 January 2004.
- Clark, Thea, and Terry Moon. 1997. *Assessing the military worth of C4ISR*. Defense Science and Technology Organization. Web page. Available from <http://www.dodccrp.org/Activities/Symposia/7thICCRTS/Tracks/pdf/059.PDF>. Internet. Accessed on 30 January 2004.
- Clark, Vern. 2002a. Admiral Vern Clark, remarks as delivered “Sea Power 21: Operational Concepts for a New Era” Current Strategy Forum, Naval War College, Newport, RI, June 12, 2002. *Navy News*. Web page. Available from [http://www.news.navy.mil/search/displaybbs.asp?bbs\\_id=353&cat=2](http://www.news.navy.mil/search/displaybbs.asp?bbs_id=353&cat=2). Internet. Accessed on 30 January 2004.
- \_\_\_\_\_. 2002b. Sea Power 21: Projecting decisive joint capabilities. *Proceedings* 128, no. 10 (October): 32.
- Coastal Systems Station, Dahlgren Division, Naval Surface Warfare Center. 2001. Autonomous operations future naval capabilities proposal for SEAL weapon and surveillance platform (SEAWASP). Draft proposal, Naval Surface Warfare Center, Panama City, FL, July.
- \_\_\_\_\_. 2003. Sea predator: Tomorrow’s joint multi-function weapon today. Draft proposal, Naval Surface Warfare Center, Panama City, FL, 26 June.

- Commander, Naval Special Warfare Command. 2002. NSW command and control terminology. Commander, Naval Special Warfare Command message date time group (DTG) 241809Z JUN 02.
- Commander, Special Operations Command. 2003a. Changes to the Missions of Special Operations Forces (SOF). Commander, Special Operations Command message date time group (DTG) 202013Z MAY 03.
- \_\_\_\_\_. 2003b. *Special Operations Forces in Operation Iraqi Freedom*. Tampa, FL: U.S. Special Operations Command, May.
- \_\_\_\_\_. 2003c. *United States Special Operations Forces posture statement, 2003-2004*. Tampa, FL: U.S. Special Operations Command, April.
- Couch, Dick. 2001. *Warrior elite*. New York, NY: Crown Publishers.
- Crawley, James. 2002. SEALs in Afghanistan. *San Diego Union-Tribune*, 17 January, A1. Web page. Available from <http://globalspecops.com/sealafghan.html>. Internet. Accessed on 30 January 2004.
- Dao, James. 2003. Odd vessel serving allies as truck stop that floats. *New York Times*, 29 March, 4B
- Dawson, Cutler, and John Nathman. 2002. Sea strike: Projecting persistent, responsive, and precise power. *Proceedings* 128, no. 12 (December): 54.
- Department of Defense. 2003a. Fiscal 2004 Department of Defense budget release. *DefenseLINK*, 3 February. Web page. Available from [http://www.defenselink.mil/news/Feb2003/b02032003\\_bt044-03.html](http://www.defenselink.mil/news/Feb2003/b02032003_bt044-03.html). Internet. Accessed on 30 January 2004.
- \_\_\_\_\_. 2003b. Transformation planning guidance. Washington, D.C.: U.S. Government Printing Office, 2003.
- Dockery, Kevin. 1991. *SEALs in action*. New York, NY: Avon Books.
- Dweyer, John. 1993. *Scouts and Raiders: The Navy's first special warfare commandos*. Westport, CT: Praeger Publishers .
- Erwin, Sandra. 2001. Underwater mine-hunting robots to replace humans: Dolphins. *National Defense Magazine*, May, 26-27.
- \_\_\_\_\_. 2002. Navy keeps mine-warfare options open. *National Defense Magazine*, December, 22-24.
- Gillmore, Gary. 2003. Transformation means profound change: Wolfowitz tells NWC grads. *DefenseLINK*, 20 June 2003. Web page. Available from <http://www>.

- defenselink.mil/news/Jun2003/n06202003\_200306203.html. Internet. Accessed on 30 January 2004.
- Gongora, Thierry. 1998. The revolution in military affairs: What should the CF do about it? *National Network News* (summer). Web page. Available from [http://www.sfu.ca/~dann/Backissues/nn5-2\\_2.htm](http://www.sfu.ca/~dann/Backissues/nn5-2_2.htm). Internet. Accessed on 30 January 2004.
- Goodman, Glenn. 2002. Transforming naval special warfare. *Armed Forces Journal International* 139, no. 9 (April): 68.
- Graham, Janice, and T. Lamar Willis. 2003. A bold course to a new naval service. *Proceedings* 129, no. 9 (September): 62-66.
- Grove, Eric. 1990. *The future of sea power*. Annapolis, MD: Naval Institute Press.
- Hanks, Robert. 1985. *American sea power and global strategy*. Mclean, VA: Pergamon-Brassey's International Defense Publishers.
- Hanlon, Edward, and Dennis McGinn. Power and access...from the sea: The conceptual foundation of naval transformation. *Navy League of the United States*, October. Web page. Available from [http://www.navyleague.org/sea\\_power/oct\\_02\\_40.php](http://www.navyleague.org/sea_power/oct_02_40.php). Internet. Accessed on 30 January 2004.
- Hardesty, David. 2003. Fix net centric for the operators. *Proceedings* 129, no. 9 (September): 68-71.
- Heffron, John. 2003. The Virginia attack boat brings new potency to the fleet. *Sea Power* 46, no. 7 (July): 27.
- Hendrix, Henry. 2003. Exploit sea basing. *Proceedings* 129, no. 8 (August): 61.
- Jogerst, John. 2002. What's so special about special operations? Lessons from the war in Afghanistan. *Aerospace Power Journal* 16, no. 2 (21 June): 98-104. Journal online. Available from <http://www.airpower.maxwell.af.mil/airchronicles/apj/apj02/sum02/sum02.html>. Internet. Accessed on 30 January 2004.
- Jones, Mark, and Wes Rehorn. 2003. Integrating SOF into joint warfighting. *Military Review* 83, no. 3 (May-June): 2.
- Katana, Tom. 1993. SEALs to the carriers. *Proceedings* 119, no. 6 (June): 61-63.
- Keeter, Hunter. 2002a. Naval Special Warfare command 'optimistic' about continued funding support. *Defense Daily* 214, no. 19 (25 April): 1.
- \_\_\_\_\_. 2002b. Key navy lessons from Afghanistan: Invest in SOF, PGMs, sea basing. *Defense Daily* 215, no. 5 (9 July): 1.

- \_\_\_\_\_. 2002c. Grossenbacher: SSGN to have major impact on sub force. *Defense Daily* 216, no. 10 (15 October): 1.
- \_\_\_\_\_. 2002d. Bowman calls for sub force-joint force dialog.” *Defense Daily* 216, no. 21 (30 October): 1.
- Kelly, Orr. 1992. *Brave men, dark waters*. Novato, CA: Presidio Press.
- \_\_\_\_\_. 1995. *Never fight fair!: Navy SEALs’ stories of combat and adventure*. Novato, CA: Presidio Press.
- Kennedy, John F. 1961. Special message to the Congress on urgent national needs. Speech delivered before a joint session of Congress, 25 May 1961. Web page. Available from <http://www.cs.umb.edu/jfklibrary/j052561.htm>. Internet. Accessed on 30 January 2004.
- Kessner, B. C. 2003. Naval Special Warfare input, possible module for LCS. *Defense Daily* 219, no. 3 (3 July): 1.
- Klose, John. 2003. SDV Units in great demand as speed, range improve. *Navy League of the United States*. Web page. Available from [http://www.navyleague.org/sea\\_power/jul\\_03\\_24.php](http://www.navyleague.org/sea_power/jul_03_24.php). Internet. Accessed on 30 January 2004.
- Koburger, Charles W. 1997. *Sea power in the 21st century: Projecting a naval revolution*. Westport, CT: Praeger Publishers.
- Kreisher, Otto. 2002. Special report: Naval Special Warfare in the forefront of the war on terror. *Navy League of the United States*. December. Web page. Available from [http://www.navyleague.org/sea\\_power/dec\\_02\\_41.php](http://www.navyleague.org/sea_power/dec_02_41.php). Internet. Accessed on 30 January 2004.
- Laird, Robbin, and Scott Truver. 2002. A new naval/military model for the 21st century: Sea- based forces and military transformation. *Navy League of the United States*. December. Web page. Available from [http://www.navyleague.org/sea\\_power/dec\\_02\\_37.php](http://www.navyleague.org/sea_power/dec_02_37.php). Internet. Accessed on 30 January 2004.
- Lavell, Kit. 2003. New technology transforming naval power. *San Diego Union-Tribune*, 2 March 2003, 15. Web page. Available from [http://www.signonsandiego.com/news/op-ed/techwar/20030301-9999\\_mz1e2newtech.html](http://www.signonsandiego.com/news/op-ed/techwar/20030301-9999_mz1e2newtech.html). Internet. Accessed on 30 January 2004.
- Lenox, Kevin. 2004. Why did Navy helos cross the beach? *Proceedings* 130, no. 1 (January): 50-52.
- Livezey, William E. 1981. *Mahan on sea power*. Norman, OK: University of Oklahoma Press.

- Mahan, Alfred Thayer. 1957. *The influence of seapower upon history*. New York, N.Y.: Hill and Wang.
- Mardola, Edward, and Oscar P. Fitzgerald. 1986. *The United States Navy and the Vietnam conflict*. Washington, DC: Naval Historical Center, Department of the Navy.
- Marquis, Susan. 1997. *Unconventional warfare: Rebuilding U.S. Special Operations Forces*. Silver Spring, MD: R. R. Donnelly and Sons, Company.
- Mathews, Paul, and Cathy Willis. 2000. Environmental characterization of the battle space enhances maritime dominance. *Surface Warfare*, October, 20-26.
- Mayo, Richard, and John Nathman. 2003. Forcenet: Turning information into power. *Proceedings* 129, no. 2 (February): 42.
- Moore, Charles, and Edward Hanlon Jr. 2003. Sea basing: operational independence for a new century. *Proceedings* 129, no. 1 (January): 80.
- Mullen, Mike. 2003. Global concept of operations. *Proceedings* 129, no. 4 (April): 66.
- Nagle, David. 2003. Charting the course of the future navy: Giant shadow showcases potential future capabilities. *Undersea Warfare* 5, no. 3 (spring): 2.
- Natter, Robert. 2003. Sea trial: Enabler for a transformational fleet. *Proceedings* 129, no. 11 (November): 62.
- Naval Warfare Development Command. 2003. Littoral combat ship concept of operations. Washington, DC: Chief of Naval Operations, February. Web page. Available from [http://www.nwdc.navy.mil/Concepts/Sea\\_Shield/LCSCONOPS.aspx](http://www.nwdc.navy.mil/Concepts/Sea_Shield/LCSCONOPS.aspx). Internet. Accessed on 5 March 2004.
- Neillands, Robin. 1997. *In the Combat Zone: Special Forces since 1945*. London: Weidenfeld and Nicolson.
- O'Brien, Phillips. 2001. *Technology and naval combat in the twentieth century and beyond*. Portland, Oregon: Frank Cass and Company, Ltd.
- Peak, Joel. 2003. *Semi-autonomous hydrographic reconnaissance vehicle/CSS program review*. Naval Surface Warfare Center, Panama City, FL. Power point briefing given to the program management Office of NAVSEA, 19 March 2003.



- Perry, Walter, Robert Button, Jerome Bracken, Thomas Sullivan, and Jonathan Mitchell. 2002. *Measures of effectiveness for the information-age navy: The effects of network-centric operations on combat outcomes*. Santa Monica, CA: RAND Publishing.
- Petrea, Howard, Terry Pierce, and Rick Jackson. 2003. Expeditionary strike group becomes reality. *Proceedings* 129, no. 9 (September): 44-47.
- Reade, David. 2003. Orion scans terrain from kosovo to the hindu kush: Venerable P-3 aircraft increase situational awareness on the battlefield. *Navy League of the United States*, June 2003. Web page. Available from [http://www.navyleague.org/sea\\_power/jun\\_03\\_35.php](http://www.navyleague.org/sea_power/jun_03_35.php). Internet. Accessed on 30 January 2004.
- Rehana, Joseph. 2000. First Los Angeles-class SSN gets dry-deck shelter. *Navy News*. Web page. Available from [http://www.chinfo.navy.mil/navpalib/cno/n87/usw/issue\\_7/losangelesclass.htm](http://www.chinfo.navy.mil/navpalib/cno/n87/usw/issue_7/losangelesclass.htm). Internet. Accessed on 30 January 2004.
- Sasser, Charles. 2002. *Encyclopedia of the Navy SEALs*. New York, NY: Facts on File, Inc.
- Smith, Edward. 2002. Network-centric warfare: What's the point? *Naval War College Review* (January): 59-75.
- U.S. Army Command and General Staff College. 1995. Special Operations Forces contributions to battle space dominance in support of the naval expeditionary force. Thesis, Fort Leavenworth, KS, June.
- \_\_\_\_\_. 1997. Blue and purple: Optimizing the command and control of forward deployed Naval Special Warfare. Thesis, Fort Leavenworth, KS, June.
- U.S. Navy. 1992. *...From the Sea*. Washington, DC: Department of the Navy, September.
- \_\_\_\_\_. 1994a. *Forward... From the Sea*. Washington, D.: Department of the Navy, September.
- \_\_\_\_\_. 1994b. *Naval Doctrine Publication 1*. Washington, DC: Department of the Navy, March.
- \_\_\_\_\_. 2002a. *Naval transformational roadmap*. Washington, DC: Department of the Navy, July.
- \_\_\_\_\_. 2002b. *Sea Power 21*. Washington, DC: Department of the Navy, October.
- \_\_\_\_\_. 2003. *Naval Special Warfare*, NWP 3-05 (Revision E). Washington, DC: Department of the Navy, August.

- Vanier, Scott. 2002. New SEAL team at little creek. Naval Amphibious Base news stories web site. Web page. Available from <http://www.nablc.navy.mil/html/news.html>. Internet. Accessed on 30 January 2004.
- Vergun, David. 2003. Spartan unmanned surface vehicle envisioned for array of high-risk missions. *Sea Power* (May): 23. Web page. Available from [http://www.navyleague.org/sea\\_power/may\\_03\\_23.php](http://www.navyleague.org/sea_power/may_03_23.php). Internet. Accessed on 30 January 2004.
- Walker, Greg. 1994. *At the hurricanes eye: US Special Operations Forces from Vietnam to Desert Storm*. New York, New York: Ballantine Books.
- Walters, Carl. 2001. *Vertical launch SEAL delivery vehicle*. Naval Surface Warfare Center, Panama City, FL. Power point briefing given to the Future Concepts Working Group, Tampa FL, December 2001.
- Warrick, Joby. 2003. On North Korean freighter, a hidden missile factory. *Washington Post*, 14 August, A1.

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